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Engraved by W. Greathatch from a very scarce print.

CARDINAL XIMENES.

De Cisneros.

HISTORY OF THE REIGN

OF

FERDINAND AND ISABELLA,

THE CATHOLIC,

OF SPAIN.

BY WILLIAM H. PRESCOTT.

Quæ surgere regna
Conjugio tali!
Virgil. Æneid. iv. 47.

Crevêre vires, famaque et imperi
Porrecta majestas ab Euro
Solis ad Occiduum cubile.
Horat. Carm. iv. 15.

IN THREE VOLUMES.

VOL. II.

36201 ae
Vv. h. 6

LONDON:
RICHARD BENTLEY, NEW BURLINGTON STREET.
Publisher in Ordinary to Her Majesty.
1838.

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D C+' 1'' KA#%? 10' ' ' 776
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E<.D?' <0D' 1% ,>M=<.D>0?!' $#+' D>>A%E' 0+.>0C@>D'
<B10=' @ %%?' 1''?1' .#==>D' <0' <?A>C+!' +@<+' +@>' C +E' @<?'
$>>0' %>D' 01+' 0<AA.1A. <+>%E' +1' <??#B>' <?' +@>' B1++1'
10' +?' <..<?!' Q' ' '%1J>.' <B10=' +@1.0? R' 0D>.' +@>'
11.?!' +' J<?' D>'>0D>D' $E' <' ?+.10=' '1.+.>??!' J@ %>'
+@>' ; >0 %!' C .C#B?C. $ 0=' +' % H>' <' D>>A' B1<+' #A10'
+@>' ?1#+@!' '1.B>D' <0' >KC>%%>0+' .<BA<.+' <=< 0?+' +@>'
<AA.1<C@>?' 1''<' 4 , ',)''<.BEL' ?0C>' +' J<?' '1.DP
<$%>' 10%E' 0' 10>' A%<C>!' <0D' +.<,>.?>D' $E' <' ?0=%>'
$. D=>!' J@ C@' B =@+' $>' ><? %E' C1B B<0D>D' $E' +@>'
C +E' 0' <DD + 10' +1' +@>?>' <D,<0+<=>?!' +@>' S 0=' 1''
.<0<D<!' +<H 0=' J<.0 0=' '.1B' +@>' '<+>' 1'' %@<B<!'
@<D' ?+.>0=+@>0>D' +?' =<.. ?10' J +@' ! ' 1''@?'
C@1 C>?+' +.11A?!' #0D>.' +@>' C1B B<0D' 1''<' ?H %'#%' <0D'
>KA>. >0C>D' J<.. 1.!' 0<B>D' %E' +<. T

W' %5%' 4%(,)' :)!5 ' ,.' 0 !' /!' J' *%5)) ' 8, !'
3%)%' 1!',,!'33!' D ' D ! J' 5K 0,2$' ' 5K 3%') ' 1!',,,!'
N$, %')% ' 5 ' %')' 1!' 3!' !

' 7

0' +@>' B><0' J@ %>!' +@>' >''1.+?' 1'' +@>' A<0 ?@' ?1,>.> =0?' +1' A.1C#.>' ?#AA% >?' <D>F#<+>' +1' +@>'#0D>.P +<H 0=' <=< 0?+' 1"<' @<D' 01+' $>>0' C.1J0>D' J +@' ?#CC>??' @>'C + >?' <0D' D ?+. C+?'1'' J@1B' +@>' .>F# P ? + 10?' @<D' $>>0' B<D>' @<D' D ?C1,>.>D' +@>' +<.D 0>??' #?#<%' 0' ?#C@' #0J >%DE' $1D >?!' J@1?>' 0+>.>?+' B1.>P 1,>.' J<?' C10? D>.<$%E' BA< .>D' $E' +@> .' D ?+<0C>' '.1B' +@>' +@><+.>' 1''<C+ 10' >.D 0<0D' 10' B#?+>. 0=' @ ?' <.BE!' +1J<.D?' +@>' %<++>.' A<.+' 1'' /#0>!' '1#0D' +@<+' +' D D' 01+' >KC>>D' 6! ' @1.?>!' <0D' 7! ! 1.' 0D>>D!' <CC1.D 0=' +1!'?1B>' <CC1#0+?!' 4! ''11+L' B1?+' 1'' +@>B' .<J' B % + <' #0A.<C+ ?>D' 0' J<.!' J@1!' A11.%E' A.1, D>D' J +@' B % +<.E' ?+1.>?' <0D' <.+ %%>.E!' '1.B>D' <' '1.C>' 1$, 1#?%E' 0<D>F#<+>' +1' +@>' B<=0 +#D>' 1'' @ ?' >0+>.A. ?>' 1B>' 1'' @ ?' C1#0?>%%1.?' J1#%D' @<,>' A>.P ?#<D>D' @ B!' '.1B' +@>?>' C10? D>.<+ 10?!' +1' +#.0' @ ?' <.B?' <=< 0?+' ?1B>' J><H>.' <0D' B1.>' <??< %<$%>' A1 0+' +@<0' 1"<L' $#+' >.D 0<0D' $#.0>D' J +@' <' D>? .DU'1.' D ?+ 0C+ 10' 0' +@>' 0>J' J<.!' <0D' ?#''>.>D' @ ?' <.D1#.' '1.' 10C>' +1' =>+' +@>' $>++>.' 1'' @ ?' A.#D>0C>' @>' D ?+.#?+' '>%+' $E' +@>' %><D>.?' ?>>.0?' +1' @<,>' 0'>C+>D' +@>' %1J>.' .<0H?!' J@1' D.>J' +@>' B1?+'#0'<,1#.<$%>' A.1=P 01?+ C?' '.1B' +@>' D>">C+>D' B >0' 1''+@1?>' J@1' $1.>' +@>' .1E<%' ?+<0D<.D' +1' +@>' C<+@>D.<%' 1'' 1.D1,<!' 0' 1.D>.' +1' .>C> ,>' +@>' $>0>D C+ 10' 1''+@>' C@#.C@!' A.>, 1#?' +1' >0+>. 0=' 10' +@>' >KA>D + 10 T

>.D 0<0D!' +.<,>.? 0=' +@>' ; >0 %' <+' C "<!' <.. ,>D

L' 1%5 G' 8, ' 5' ' 33!' DH' 6 ! J *% 5)) ' 8, !' C ' *% ,(! !'(!' .,,, J %>' 5K 0,2$' ' 5K 3%') ' 1!',,,!' ,%)%!' 8, ' 5' 3%,,%' 1!',,!' 33!' 6H' !

<=< 0‘ 10‘ +?‘ ?1#+@>.0‘ $<0H‘ $>'1.>‘ 1"<‘ 10‘ +@>‘ .?+‘ 1'‘ /#%E‘ @>‘ <.BE‘ >0C<BA>D‘ <B10=‘ +@>‘ @ %%?!‘ J@1?>‘D>>A‘.<, 0>?‘1$?+.#C+>D‘C1BB#0 C<+ 10‘$>+J>>0‘ +?‘ D ''>.>0+‘ F#<.+>.?L‘ J@ %>‘ +@>‘ %>,>%‘ A%< 0?‘ $>%1J‘ J>.>‘ 0+>.?>C+>D‘ $E‘ 0#B>.1#?‘ C<0<%?!‘ >F#<%%E‘ #0P '<,1#.<$%>‘ +1‘ +@>‘ B<01>#,.>?‘ 1'‘ +@>‘ B>0M<+M<.B?‘ @>‘ #H>‘ 1'‘ %%<‘ >.B1?<!‘ +@>‘ H 0=?‘ $.1+@>.!‘ <0D‘C<A+< 0‘=>0>.<%‘1'‘+@>‘ @>.B<0D<D!‘ <0‘ 1'' C>.‘ 1'‘ %<.=>‘>KA>. >0C>!‘ J1#%D‘ @<,>‘A>.?#<D>D‘ >.D 0<0D‘+1‘ <++>BA+!‘ $E‘+@.1J 0=‘ $. D=>?‘ <C.1??‘ +@>‘ . ,>.‘ %1J>.‘ D1J0‘ +@>‘ ?+.><B!‘ +1‘ <AA.1<C@‘ +@>‘ C +E‘ 10‘ +@>‘1+@>.‘ ? D>‘L‘ $#+‘ @ ?‘ C1#0?>%‘ J<?‘1,>..#%>D‘$E‘+@>‘ <?+ % <0‘ 1'' C>.?!‘ +1‘J@1B‘ +@>‘ %1C<+ 10‘1'‘+@>‘ C<BA‘@<D‘$>>0‘ 0+.#?+>D!‘ <0D‘ J@1‘ 0>=%>C+>D!‘ <CC1.D 0=‘ +1‘ V#. +<!‘ +1‘ <D, ?>‘ J +@‘ +@>‘ 0D<%#? <0‘ C@ >'?!‘ <%+@1#=@‘ '<.‘ $>++>.‘ 0?+.#C+>D‘ +@<0‘ +@>B?>%,>?‘ 0‘ 11. ?@‘ J<.P '<.> T

‘ %<.=>‘ D>+<C@B>0+‘ 1'‘ +@>‘ <.BE‘ J<?‘ 1.D>.>D‘ +1‘ 1CC#AE‘ <‘ %1'+E‘ >B 0>0C>!‘ <+‘ ?1B>‘ D ?+<0C>!‘ C<%%>D‘ N+@>‘@> =@+?‘1'‘ %$1@<C>0!‘ <0D‘+1‘ '1.+ 'E‘ +‘ J +@‘?#C@‘ '>J‘A >C>?‘ 1'‘1.D0<0C>‘<?‘+@>E‘@<D!‘ J +@‘+@>‘ , >J‘1'‘ <0O1E 0=‘ +@>‘ C +E‘ @ ?‘ C1BB ?? 10‘ J<?‘ 0+.#?+>D‘ +1‘+@>‘ <.F# ?>?‘1'‘ <D G‘<0D‘ %%>0<!‘<0D‘+@>‘ .<0D‘ <?+>.‘ 1'‘ <%<+.<,<L‘ J@ C@‘ %<?+‘ 01$%>B<0‘ @<D‘ $.1#=@+‘+1‘+@>‘ ' >%D‘ <$1#+‘ '1#.‘ @#0D.>D‘ @1.?>‘<0D‘< %<.=>‘ $1DE‘1'‘ 0'<0+.E‘ '.1B‘ +@>‘ A%<C>?‘ $>%10= 0=‘ +1‘ @ ?‘ 1.D>.‘ 0‘ 0D<%#? <‘ >'1.>‘ +@>‘ 0+.>0C@‘B>0+

L‘ !‘ %,) ‘ ,($ ‘ * %% *%!‘ 3!‘ I/!‘ J‘N$,%‘)% ‘ 1 %4!‘ 5‘ 3%,,%‘0 !‘ / !‘ 1!‘,.!‘0 !‘ ‘ /! J $ '% ‘ *),(% 5‘ ‘ C

C1#%Dʻ $>ʻ '#%%Eʻ C1BA%>+>D!ʻ %Eʻ +<.!ʻ D ?C>.0 0=ʻ +@>ʻ BA1.+<0C>ʻ 1'ʻ +@ ?ʻ C1BB<0D 0=ʻ ?+<+ 10!ʻ B<D>ʻ <ʻ ?1.+ >ʻ '.1Bʻ +@>ʻ +1J0!ʻ '1.ʻ +@>ʻ A#.A1?>ʻ 1'ʻ D ?%1D= 0=ʻ @ ?ʻ>0>B >?ʻ @>ʻ%<++>.ʻA1#.>Dʻ 1#+ʻ'.1Bʻ+@> .ʻ J1.H?ʻ +1ʻ .>C> ,>ʻ @ BLʻ $#+ʻ +@>ʻ 1?%>Bʻ =>0>.<%!ʻ ?C<.C>%Eʻ J< + 0=ʻ +1ʻ .>C> ,>ʻ+@>ʻ?@1CH!ʻ J@>>%>Dʻ @ ?ʻ ?F#<D.10?ʻ .1#0D!ʻ <0Dʻ $>=<0ʻ <ʻ A.>C A +<+>ʻ .>+.><+ʻ @>ʻ A<P 0 <.D?ʻ ><=>.%Eʻ A#.?#>D!ʻ $#+ʻ J@>0ʻ +@>Eʻ @<Dʻ $>>0ʻ D.<J0ʻ +Aʻ <ʻ ?#'' C >0+ʻ D ?+<0C>ʻ '.1Bʻ +@>ʻ .>D1#$+!ʻ <ʻ A<.+Eʻ1'ʻ 11. ?@ʻ = 0>+>?!ʻ 1.ʻ % =@+ʻ C<,<%.E!ʻ J@1ʻ@<Dʻ C.1??>Dʻ +@>ʻ . ,>.ʻ #01$?>.,>Dʻ D#. 0=ʻ +@>ʻ 0 =@+ʻ <0Dʻ %< 0ʻ 0ʻ <B$#?@!ʻ <'+>.ʻ +@>ʻ J %Eʻ '<?@ 10ʻ 1'ʻ .<$ <0ʻ +<C+ C?!ʻ D<.+>Dʻ '.1Bʻ +@> .ʻA%<C>ʻ1'ʻC10C><%B>0+!ʻ <0D!ʻ =<%%1A 0=ʻ 0+1ʻ +@>ʻD>?>.+>Dʻ C<BA!ʻ A%#0D>.>Dʻ +ʻ1'ʻ +?ʻ C10+>0+?!ʻ 0C%#D 0=ʻ +@>ʻ %1B$<.D?ʻ 1.ʻ ?B<%%ʻ A >C>?ʻ 1'ʻ <.+ %%>.Eʻ J +@ʻ J@ C@ʻ +ʻ J<?ʻ =<.0 ?@>Dʻ @>ʻ <?+ P % <0?!ʻ +11ʻ%<+>ʻA>.C> , 0=ʻ+@> .ʻ>..1.!ʻ @<%+>Dʻ'.1Bʻ+@>ʻ A#.?# +!ʻ <0Dʻ.>+#.0>Dʻ J +@ʻ<?ʻ B#C@ʻ?A>>Dʻ<?ʻA1?? $%>ʻ +1ʻ +@>ʻ D>'>0C>ʻ 1'ʻ+@> .ʻ C<BAʻ %Eʻ! +<.!ʻ +#.0 0=ʻ <%?1!ʻ @#0=ʻ C%1?>ʻ 10ʻ +' > .ʻ .><.!ʻ ?1ʻ +@<+ʻ J@>0ʻ +@>&ʻ @. ?+ <0?ʻ <.. ,>Dʻ <+ʻ +@>ʻ ?#B B +ʻ 1'ʻ+@>ʻ @ %%!ʻ +@>Eʻ '1#0Dʻ+@>B?>%,>?ʻ @>B B>Dʻ 0ʻ $>+J>>0ʻ +@>ʻ +J1ʻ D , P ? 10?ʻ 1'ʻ +@>ʻ 11. ?@ʻ <.BEʻ ʻ $. ?Hʻ <C+ 10ʻ 01Jʻ >0?#>D!ʻ <0Dʻ %<?+>Dʻ 0><.%Eʻ <0ʻ @1#.Lʻ J@>0ʻ +@>ʻ <DP ,<0C>ʻ 1'ʻ.> 0'1.C>B>0+?ʻ '.1Bʻ +@>ʻ B< 0ʻ $1DEʻ 1'ʻ +@>ʻ A<0 ?@ʻ<.BE!ʻ J@ C@ʻ @<Dʻ $>>0ʻ D>%<E>Dʻ $Eʻ D ?+<0C>ʻ <0Dʻ BA>D B>0+?ʻ 1'ʻ+@>ʻ .1<D!ʻ C1BA>%%>Dʻ+@>ʻ 11.?ʻ +1ʻ<ʻA.1BA+ʻ$#+ʻ1.D>.%Eʻ.>+.><+ʻ 0+1ʻ +@> .ʻ 1J0ʻ C +Eʻ @>ʻ @. ?+ <0?ʻ ?#?+< 0>Dʻ <ʻ @><,Eʻ %1??!ʻ A<.+ C#%<.%Eʻ 0ʻ+@>ʻD><+@ʻ1'ʻ 1D. =1ʻ >%%>Gʻ .10!ʻ .<0Dʻ <?+>.

1'' <%<+.<,<' >' J<?' @ +' $E'+J 1'<..1J?!' +@>'%<?+' 1'' J@ C@' A>0>+.<+ 0=' +@>'"1 0+?' 1'' @ ?' @<.0>??' $>0><+@' @ ?' ?J1.DM<.B!' <?' @>' J<?' 0' +@>' <C+' 1'' .< ? 0=' +!' 0'% C+>D' 10' @ B' <' B1.+<%' J1#0D!' 1'' J@ C@' @>' >KP A .>D' 0' <' '>J' @1#.?!' ?<E?' <0' 1%D' C@.10 C%>.!' <'+>.' @<, 0=' C10'>??>D!' <0D' A>.'1.B>D' +@>' %<?+' D#+ >?' 1'' <' =11D' <0D' '< +@'#%' @. ?+ <0' %+@1#=@' ?C<.C>%E' +J>0+EM'1#.' E><.?' 1'' <=>!' +@ ?' C<,<% >.' @<D' = ,>0' A.11'?' 1'' ?#C@' ? =0<%' A.1J>??' +@<+' @>' J<?' >?+>>B>D' 10>' 1'' +@>' $>?+' H0 =@+?' 1'' <?+ %>L' <0D' @ ?' D><+@' +@.>J' <' =>0>.<%' =%11B'1,>.'+@>' J@1%>'<.BE T

>.D 0<0D' 01J' $>C<B>' C10, 0C>D' 1'' +@>' #0?# +P <$%>0>??' 1'' <' A1?+10' J@ C@' 0> +@>.' <DB ++>D' 1'' ><?E' C1B B#0 C<+ 10' $>+J>>0' +@>' D ''>.>0+' F#<.+>.?' 1'' @ ?' 1J0' C<BA!' 01.' >0<$%>D' @ B' +1' 0+>.C>A+' +@>' ?#AA% >?' D< %E' A<?? 0=' 0+1' +@<+' 1''@ ?' >0>BE' +@>.' 0C10,>0 >0C>?' <%?1' A.>??>D' 10' @ B' ?' B>0' J>.>' ?1' $<D%E' A.1, D>D' J +@' +@>' 0>C>??<.E' #+>0? %?' '1.' D.>?? 0=' +@> .' '11D!' +@<+' +@>E' J>.>' 1$% =>D' > +@>.' +1' D>,1#.' +' .<J!' 1.' 10%E' @<%'MC11H>D' 1?+' 1'' +@>B' $> 0=' 0>J' .>C.# +?' #0<CC#?+1B>D' +1' +@>' A. P ,<+ 10?' 1''J<.!' <0D' B<0E' >K@<#?+>D' $E' <' J><. ?1B>' %>0=+@' 1'' B<.C@' $>'1.>'"1 0 0=' +@>' <.BE!' +@>E' $>=<0' 1A>0%E' +1' B#.B#.!' <0D' >,>0' +1' D>?>.+' 0' =.><+' 0#B$>.?' >.D 0<0D' +@>.>'1.>' .>?1%,>D' +1' '<%%' $<CH' <?' '<.' <?' 1' .1!' <0D' <J<+' +@>.>' A<+ >0+%E' +@>

$' %5 'C')5 %5%' *) (% .,,!' J' *)5 ' 1,)%(!' 5' ' 5' %' ' 5) ' 0 !' I ' I !' %4 ' 1!',,,!' 3!' D! J %>' J !' %,) ' ,($ ' * %' >' ,)5 G' 5' *% 4%+%')% ' !' 1 !'0 !' /' ! J 4,) , ' >' %) ' DI !' $1' 3 % $1' (!',,!' ,4!' $' (!

<. . ,<%1"'?#C@' '.>?@' .> '1.C>B>0+?'<?' B =@+' A#+' @ B'
0' C10D + 10' +1'>0'1.C>' <' B1.>' . =1.1#?' $%1CH<D>
.D>.?' J>.>' <CC1.D 0=%E' ??#>D' +1' +@>' C<,<% >.?'
1CC#AE 0=' +@>' @> =@+?' 1"' %$1@<C>0' +1' $.><H' #A'
+@> .' C<BAU' <0D' "1 0' +@>B?>%,>?' +1' +@>' B< 0' $1DE'
1"' +@>' <.BE' @ ?' J<?' >K>C#+>D' 10' +@>' '1%%1JP
0=' B1.0 0=' $>'1.>' D<J0!' $> 0=' +@>' 6+@' 1"' /#%E'
' ?110>.' D D' +@>' 11.?' 1"' 1"<' A>.C> ,>' +@> .'
>0>BE' <$<0D10 0=' @ ?' ?+.10=' A1?+10!' +@<0' +@>E'
?<%% >D' '1.+@' 0' C10? D>.<$%>' '1.C>' +1' +<H>' A1??>?? 10'
1"' +' >.D 0<0D ?' B>0!' J@1' @<D' 01+' $>>0' <D, ?>D'
1"' +@>' A.1A1?>D' B<01>#,.>!' 01' ?110>.' $>@>%D' +@>'
11. ?@' <..<E' $. =@+>0 0=' +@>' C.>?+' 1"' +@>' B1#0M'
+< 0!' <0D'+@> .'1J0' C1#0+.EB>0' .<A D%E' D>?C>0D 0=!'
+@<0' +@>E' B<= 0>D' +@<+' +@>?>' %<++>.' @<D' $>>0' ?#.P
A. ?>D' 0' +@> .' 0+.>0C@B>0+?' D#. 0=' +@>' 0 =@+!' <0D'
J>.>' 01J' '%E 0=' $>'1.>' +@>' >0>BE' 0' <%<.B' 0P
?+<0+%E' ?A.><D' +@.1#=@' +@>' J@1%>' C<BA' 0?+><D'1"'
?+<0D 0=' +1' +@> .' D>'>0C>!' ><C@' 10>' +@1#=@+' 10%E'1"'
?<, 0=' @ B?>%"' $E' <?' ?A>>DE' <' '% =@+' <?' A1?? $%>' 0'
,< 0' D D' >.D 0<0D!' . D 0=T' <%10=' +@> .' $.1H>0' ' %>?!'
>0D><,1#.' +1' .><0 B<+>' +@> .' ?A . +?' <0D' .>?+1.>'
1.D>.' >' B =@+' <?' ><? %E' @<,>' C<%B>D' +@>' J 0D?!'
<?' +@>' D ?1.D>.' 1"' <' A<0 CM?+.#CH' B1$!' #0?C@11%>D' $E'
D ?C A% 0>' 1.' >KA>. >0C>' %E' +<. ?' A.<C+ ?>D' >E>'
?A>>D %E' D ?C>.0>D' +@>' C10'#? 10' J@ C@' A.>,< %>D'
+@.1#=@' +@>' @. ?+ <0' C<BA' +@1#+' D>%<E!' @>'
.#?@>D' '1.+@' BA>+#1#?%E' <+' +@>' @><D' 1"' @ ?' J@1%>'
<..<E' '.1B' +@>' =<+>?' 1"' 1"<!' <0D' C10,>.+>D' 0+1

<' .><%' D<0=>.' J@<+' @<D' $>'1.>' $>>0' 10%E' B<P
= 0<.E T

+' +@ ?' A>. %1#?' B1B>0+' 01+@ 0=' $#+' >.D 0<0D ?'
C11%0>??' C1#%D' @<,>' ?<,>D' +@>' <.BE' '.1B' +1+<%' D>P
?+.#C+ 10 ' 5#++ 0=' @ B?>%'<+' +@>' @><D' 1'' +@>' .1E<%'
=#<.D!' <0D' <CC1BA<0 >D' $E' <' =<%%<0+' $<0D' 1'' C<,<P
% >.?!' J@1' @>%D' @101#.' D><.>.' +@<0' % '>!' @>' B<D>'
?#C@' <' D>+>.B 0>D' ?+<0D' <=< 0?+' +@>' 11. ?@' <DP
,<0C>!' +@<+' %E' +<.' J<?' C1BA>%%>D' +1' A<#?>' 0' @ ?'
C<.>>.' ' '# 1#?' ?+.#==%>' >0?#>D' $>+J K+' +@ ?' D>P
,1+>D' % ++%>' $<0D' <0D'+@>' J@1%>' ?+.>0=+@' 1'' +@>' 1?P
%>B' <.BE' >.D 0<0D' J<?' .>A><+>D%E' >KA1?>D' +1'
BB 0>0+' A>. %' 0' 10>' 1CC<? 10' @>' J<?' 0D>$+>D' '1.'
@ ?' ?<'>+E' +1' +@>' <.F# ?' 1'' <D G!' J@1!' C@<.= 0=' <+'
+@>' @><D' 1''<$1#+' ? K+E' %<0C>?!' $.1H>' +@>' D>>A' .<0H?'
1''+@>' 11. ?@' C1%#B0!' <0D!' C1BA>%% 0=' +' +1' .>C1 %!'
?#CC>>D>D' 0' .>?C# 0=' @ ?' ?1,>.> =0 ' 0' +@ ?' <D,>0P
+#.>' @>' 0< 1J%E' >?C<A>D' J +@' @ ?' 1J0' % '>!' @ ?'
@1.?>' $> 0=' ?@1+' #0D>.' @ B' <+' +@>' ,>.E' B1B>0+'
J@>0' @>' @<D' %1?+' @ ?' %<0C>' 0' +@>' $1DE' 1'' <' 11. '
>,>.' D D' +@>' A<0 ?@' C@ ,<%.E' ?@>D' +?' $%11D' B1.>'
'.>>%E' @>' C10?+<$%>' 1#0+' D>' <.1!' .>C> ,>D'
+@.>>' J1#0D?' 0' +@>' '<C>' @>' #H>' D>' >D 0<'
>%' J<?' #0@1.?>D' <0D' $.1#=@+' +1' +@>' =.1#0D!' <0D'
?<,>D' J +@'D '' C#%+E' $E' @ ?' 1J0' B >0L' <0D' +@>' 1#0+'
D>' >0D %%<!' J@1?>' >0C<BABA>0+' %<E' 0><.>?+' +@>' C +E

L' $ '% ' *),(%5 ' ' C ' 1,)%(!5 ' ' %4 ' 1!,,,!
*% !33! IHJ H !J *$ %5 ' 33!' DJ /!J *%5)) '8, !'
' %%(, ' !(!' .,,,!J *)5 5K 3%') ' 1!,,,!33! ' !

.>C> ,>D' ?>,>.<% ?>,>.>' $%1J?!' <0D' J1#%D' @<,>' '<%%>0' 0+1' +@>' @<0D?' 1'' +@>' >0>BE!' @<D' +' 01+' $>>0' '1.' +@>' + B>%E' < D' 1'' @ ?' '. >0D!' +@>' E1#0=' 1#0+' D>' V#0 =<

@>' 11.?!' ' 0D 0=' +' ?1' D '' C#%+' +1' B<H>' <0' BA.>?? 10' 10' +@ ?' .10' $<0D' 1'' J<.. 1.?!' $>=<0' <+' %>0=+@' +1' ?%<CH>0' +@> .' >''1.+?!' <0D' ' 0<%%E' <%%1J>D' >.D 0<0D' +1' D.<J' 1''' +@>' .>B0<0+' 1'' @ ?' '1.C>?' J +@1#+' '#.+@>.' 1AA1? + 10' @>' H 0=' C10+ 0#>D' @ ?' .>+.><+' J +@1#+' @<%+ 0=!' <?' '<.' <?' +@>' .1B<0+ C' ? +>' 1'' +@>' 5>0<' D>' %1?' 0<B1.<D1?!' <$1#+' ?>,>0' %><=#>?' D ?+<0+'.1B' F"<L' <0D!' <$<0D10 0=' <%%' +@1#=@+?' 1'' 1''>0? ,>' 1A>.<+ 10?' '1.' +@>' A.>?>0+!' ?110' <'+>.' .>P +#.0>D' +1' 1.D1,<' #%>E' $#%' <C>0' <.. ,>D' +@>' '1%%1J 0=' D<E' J +@' <' A1J>.'#%' .> 0'1.C>B>0+' '.1B' .<0<D<!' <0D' ?J>A+' +@>' C1#0+.E' <?' '<.' <?' 1' .1T' <D' @>' C1B>' $#+' <' '>J' @1#.?' ?110>.!' +@>.>' J1#%D' @<,>' $>>0' '>J' A<0 <.D?' %>'+' +1' +>%%' +@>' +<%>' 1'' +@>' .1#+' 1'' 1"< T

L' *$ % 5' % %(, ' !' (!' .,,,! J *)5' 1!' 5' ' ,) ' A' 3%), A' , C!' ; %4 ' 1!',,,! 33! DJ /!' 0 ' A C' ($5' 00 (' A ,' 3$; J $ '% ' *),(%' $4,' $3 %! J' 3 ' A B . ' A C' B ' A C' 4 ,) , ' " $1' : % $1' 3$ $ 5' 4C' A ' 5%1 K' 0% A ' (!',,! ,4!,! (! .,,! J A '%# ' , A' A 1)' %)5' . %@)' # &' ' & (,. 5', ') % '% 3 (,3,(' BA,(A' , '4 ;)%1 '0 1' %' %T(%',)(,5)',)' B)' (A,5)% %)5') >' , A' A, C!' ' *A , ,%)' 2$ %!' A ' $)0 $)% ' 0$',; %. ' $((5 5',)' ,) 3, ,)'' A ' ,. ' BA ' A%5' (%14 5' ' A ' 5%$'A ' 0A,' 1% '%.7 % AC' $1 1,' 0' A ' (@ '0,)5,)'' % ' $ $ 1%)' 0' : %)%5%' B, A' %' 0$ A ' (%3',13 %(,(%4 '%0; 3% ,)' 0 ' A,1 0' A ' B ' ')5 C' 14 %(,)'') '%) ; . ' %0 ' 1 ' ,1 '0 % 0$' A ' A B' A 1 . ' A %5)'' 0' A '5 (,)' 0' A , ',) ,'$ ' 0 1' A ' 5,GGC' A ,'A ' 3 0 ; . 5' ' 1%@ ' A , ' (%3 ,)'' A, ' 5 %50$' 5 % A' ' 0% >

@>' %1??' 1''+@>' @. ?+ <0?' B#?+' @<,>' $>>0' ,>.E' C10? D>.<$%>!' 0C%#D 0=' +@>' =.><+>.' A<.+' 1''+@>' $<=P =<=>' <0D' +@>' <.+ %%>.E' +' 1CC<? 10>D' D>>A' B1.+P ' C<+ 10' +1' +@>' F#>>0L' $#+!' +@1#=@' <' ?>,>.>!' +' A.1,>D' <' ?<%#+<.E' %>??10' +' ?@1J>D' +@>' BA1.+<0C>' 1'' B1.>' >K+>0? ,>' A.>A<.<+ 10?' '1.' <' J<.' J@ C@' B#?+' 1'' 0>C>?? +E' $>' <' J<.' 1'' A1?+?L' <0D' +' +<#=@+' +@>' 0<+ 10' +1' >0+>.+< 0' =.><+>.' .>?A>C+' '1.' <0' >0>BE' J@1!' J@<+>,>.' B =@+' $>' @ ?' 0<+#.<%' ?+.>0=+@!' B#?+' $>C1B>' '1.B D<$%>' J@>0' <.B>D' J +@' +@>' >0>.=E' 1'' D>?A< .

+' +@ ?' "#0C+#.>!' <' D , ? 10' <B10=' +@>' 11.?' +@>B?>%,>?' D D' B1.>' '1.'+@>' @. ?+ <0?' +@<0' <0E' ?#>M' C>??>?' 1''+@> .' 1J0' @ ?' D , ? 10' =.>J' 1#+' 1''+@>' , C 1#?' ?E?+>B' 1'' A1%E=<BE!' J@ C@' ?1J?' +@>' ?>>D?' 1'' D ?C1.D' <B10=' +@1?>' J@1B' 0<+#.>' <0D' 1#.' 1J0' @<AA >.' 0?+ +#+ 10?' #0 +>' B1?+' C%1?>%E' @>' 1%D' S 0=' 1'' .<0<D<' @<D' $>C1B>' ?1'D>>A%E'>0<B1#.>D' 1'' <' .>>H' ?%<,>!' +@<+' +@>' #%+<0<' V1.<E<!' "><%1#?' %>?+' +@>' 1''?A. 0=' 1'' @>.' . ,<%' ?@1#%D' ?#AA%<0+' @>.' 1J0' 0' +@>' ?#CC>?? 10!' ?>C.>+%E' C10+. ,>D' +1' ?+ .' #A' <' ?A . +' 1'' D ?C10+>0+' J +@' @>.' @#?$<0D ?' =1,>.0B>0+' @>' H 0=!' $>C1B 0=' <CF#< 0+>D' J +@' @>.' 0+. =#>?!'C<#?>D' @>.' +1' $>' BA. ?10>D' 0' +@>' '1.+.>??' 1''+@>' %@<B$.<L' $#+' +@>' ?#%+<0<!' $ 0D 0=' +1=>+@>.' +@>' ?C<.'?' <0D

,)''),) ' A ' A%)5 ' 0' A , ' .,); ( )($5 ' B, A' A ' 3, AC' 0 (; 5,(,. ' 3$ $!' A ' 3 ' ( ); ,)' A% ' Y $(A' ( ) %)(C'B $ 5' (% 5' % ' A ' ( ) ' 0' A, ' %; A%. ' 4)' $ C' %51, %4 ' A%5' ',(,)(,5)' A% ' (,. 5' A ' ,' 4)' A B)',)' 5 0)(' 0' A ')%1 ' 0'( )' *!+# ,# &' A ' $ ' 0%, A' % A ' A%)' ,)' A ' ')5',' 3 , C' 5' 4C' % ,; ' % ,0,(% ,)' 0' %B ' %33 , !Z %)%' P 1!' ,,!' 33 6 6D X' BA

,> %?' $>%10= 0=' +1' @>.?>%"'<0D' <++>0D<0+?!' ?#CC>>D>D!' $E' B><0?' 1"' +@ ?' A>. %1#?' C10,>E<0C>!' 0' B<H 0=' @>.' >?C<A>!' +1=>+@>.' J +@' @>.' C@ %D.>0!' '.1B' +@>' #AA>.' <A<.+B>0+?' 1"' +@>' +1J>.' 0' J@ C@' ?@>' J<?' %1D=>D' @>' J<?' .>C> ,>D' J +@'"1E' $E' @>.' 1J0' '<C+ 10' @>' 0?#..>C+ 10' ?110' ?A.><D' <B10=' +@>' A1A#%<C>!' J@1!' E >%D 0=' +1' +@>' BA#%?>?' 1"'0<+#.>!' <.>' .><D %E' .1#?>D' $E' <' +<%>' 1"' 1AA.>?? 10L' <0D' +@>' 0#B$>.' J<?' ?+ %%' '#.+@>.' ?J>%%>D' $E' B<0E' 1"' @ =@>.' .<0H!' J@1' @<D' ,<. 1#?' C<#?>?' 1"'D ?=#?+' J +@' +@>' 1AA.>?? ,>' =1,>.0P B>0+' 1"' $#%' <C>0 T' @>' ?+.10=' '1.+.>??' 1"' +@F' %@<B$.<!' @1J>,>.!' .>B< 0>D' '< +@'#%' +1' @ B' ' J<.' 01J' $#.?+' '1.+@' 0' +@>' C<A +<%' J@ C@' D>%#=>D' +? ?+.>>+?' J +@' +@' +@>' $%11D' 1"' +?' C + G>0?' +' %>0=+@' +@>' ?#%+<0<' +. #BA@>DL' $#%' <C>0' J<?' >KA>%%>D' '.1B' .<0<D<!' <0D' ?1#=@+' <' .>'#=>' 0' <%<=<!' J@ C@!' J +@' <G<!' #<D K!' <0D' ?1B>' 1+@>.' A%<C>?' 1"' BA1.+P <0C>!' ?+ %%' <D@>.>D' +1' @ BL' J@ %>' .<0<D<!' <0D' $E' '<.' +@>' %<.=>.' A1.+ 10' 1"' +@>' H 0=D1B!' A.1C%< B>D' +@>' <#+@1. +E' 1"' @ ?' >%D>.' ?10!' $#' $D<%%<@!' 1.' 1<$D %!' <?' @>' ?' #?#<%%E' C<%%>D' $E' +@>' <?+ % <0' J. +>.?' @>' A<0 ?@' ?1,>.> =0?' , >J>D' J +@' 01' ?B<%%' 0+>.>?+' +@>?>' A.1C>>D 0=?' 1"'+@>' 11.?!' J@1' J>.>' +@#?' J<0P +10%E' ' =@+ 0=' +@>' $<++%>?' 1"' +@> .' >0>B >?' %%

Q' *)5 ' 1,)%(!' 5' ' '% ' ' F (, % . 'A,1!' $>' %4 ' 1!',,,!'33!' DJ /!' '%'A,) '%' A'4 5C 1% %(' J *%5)) ' 8, !' 5K 3%') ' 0'A ' 4)(%' 'BA,(A'B, A; 1!'A,!'33!' ' !J % 1 ' $' %)C' 4 '%$A ,C' A%' ' ,4!',!' (!' F,,!' 1%5G' % ' @) B'0 1' A'4$5)' 0'1%)C' A%' ' %' $14 %' ' B%' %@)' %)' %)(,)' 4% %5' %)5' A%' ' %' A',)0$)('BA,(A' A' '",)'') A,)'' 0', ' 1%) ,'($,)'' 0' : %)%5%% B 5'%'3)' 0' $)5 ' A' A%)5' 0' :,) ' G' *A , ,%)' ,) %' ')%1 5'E) ; 5'8C %!

A.1''>.?' 1'' <?? ?+<0C>' 10' +@> .' A<.+!' @1J>,>.!' $> 0=' J<. %E' .">C+>D' $E' > +@>.' '<C+ 10!' 01+J +@?+<0D 0=' +@>' B#+#<%' @<+.>D' 1'' ><C@' 1+@>.!' +@>E' C1#%D' 10%E' <J< +' J +@' A<+ >0C>' +@>' +>. B 0<+ 10' 1'' <' ?+.#==%>!' J@ C@!' J@<+>,>.' B =@+' $>' +?' .>?#%+?' 0' 1+@>.' .>P ?A>C+?!' C1#%D' 01+' '< %' +1' 1A>0' +@>' J<E' '1.' +@>' ?#CC>??' 1''+@> .'1J0' <. B? T

1' B % +<.E' 1A>.<+ 10?' J1.+@E' 1'' 01+ C>' 1CC#..>D' D#. 0=' +@>' .>B< 0D>.' 1'' +@>' C<BA< =0!' >KC>A+' 1CC<P ? 10<%' ' 1.' 0.1<D?!' 10' $1+@' ? D>?!' J@ C@!' <'+>.' +@>' #?#<%' #0?A< 0=' D>,<?+<+ 10!' ?J>A+' <J<E' J@1%>' @>.D?' 1''C<++%>!' <0D' @#B<0' $> 0=?!'+@>' J.>+C@P >D' C#%+ ,<+1.?' 1'' +@>' ?1 %' @>' F#<0+ +E' 1'' $11+E' '.>F#>0+%E'C<.. >D' 1''' 10' ?#C@' 1CC<? 10?!' <B1#0+ 0=!' <CC1.D 0=' +1' +@>' +>?+ B10E' 1'' $1+@' @. ?+ <0' <0D

L' *% 5)) ' 8, !'5K 3%') ' BA,(A' ,'),0, ' %)' , %)5<' A ' $4,' $3 % J *)5 ' 1,)%(!' 5 ' , %' 0' A ' 3$F% % ' (1 ' ,L%4 ' $4,' $3! 0 1' %' 1' ,'),0C,)''A 4%' ' %45,' B%' $1%1 5' Z' ' '3% $ %' <' A%' 0' (,0 ' *A,(Z' A ' , ' 4C' A ' 3%; 0, 1' %) A ' ,'),0C,)'' (%$;), A' B , ' '5, ,)'$, A' A,1' B%C' ' A,'A' %5' (!' A ' 0,0 1' %)'$)(' 0' A ' %1 ')%1 ' %4,(' B 5' , ' %)5 '0 ' ,; B, A' A,1 0<'%)5'Y' 'N ' CA, [' . !' A, ' B, B$' 1$(A' ., ; A ')0 $)% ' 4C' A ')(' A% ' 4)' (A%)' 5' ,) ' ,)5,(% ,)'' A% ' A ' B% ' A ' % ' : $%5 ' %)5'3 0,F 5' ' A ')%1 ' 0' A, ' %(' 5 ,) 5' ' B % ' A ' 0'1%)C' 0' A ' $A)' %1 <' 5,%5 1' 0' : %)%5%!' A ' %4 ' 0 ' F%13 ' : $%5% 2$,., ' : % ' B, A' ' %'0 ,(, C'0 2$) C' ; ,. <' : $%5,%)% % B' ' , ; (')%1 ' ,')0,(%)' 0' 1' ' ,. <' : $%5 ' \(!')' A ' 2$% , C',)' A ' 4+ (' A C' 3 ; %1 ' 1%)) ' A ' 1' 5,)%') !' F%13 ' 0' A, ' 1%C' 4 ' %4,(' (, C' A% ' 4)' %,) 5' %5, C' 0 $)5' ,)' A ' $A)' % ' %'3 0,F' ' A ')%1 ' 0'1%)C' ',) ' 0' A ' 3),) $%' BA ' 0' A ' 3%), A' B) ' % ' 5,)% A ' ' ,)' 5' A ')' ! * ,Ⅱ 5,)% 5 ' *%13 ' \(!' A ' C1 'C' 0' : ,4 % % ' : >' ' *)5 K') ' ' A ' >' 4% ' % ,@' $) ' 0' %,?(' ,' (,3(, ' 5 ' 3%,,% 3 ' ' $>' B ' @) B)!' A$ ' ' G, % 4,) ' 3% ,1! (1 ' 0 1' %)' %4,(' B 5

11. ?@' J . +>.?!' +1' +J>0+E!' +@ .+E!' <0D' >,>0' ' '+E' +@1#?<0D' @><D' 1'' C<++%>!' ?@1J?' +@>' '.# +'#%0>??' <0D' <$#0D<0+' A<?+#.<=>' 0' +@>' ?1#+@>.0' .>= 10?' 1'' +@>' A>0 0?#%<' @>' %1??' 0'% C+>D' $E' +@>?>' +>.. $%>' '1.<E?' '>%%' >,>0+#<%%E' B1?+' @><, %E' 10' .<0<D<!' 0' C10?>P F#>0C>' 1'' @>.' ?C<0+E' +>.. +1.E' <0D' 0?#%<+>D' A1? + 10!' J@ C@' C#+' @>.' 1''' '.1B' <%%' '1.> =0' .>?1#.C>?

1J<.D?' +@>' %<++>.' >0D' 1'' C+1$>.!' +@>' C1#.+' A<??>D' '.1B' 1.D1,<' +1' <D. D!' J +@' +@>' 0+>0+ 10' 1'' .>B< 0 0=' +@>.>' +@>' >0?# 0=' J 0+>. ' <D. D!' +' B<E' $>' 1$?>.,>D!' @1J>,>.!' J<?' ?1' '<.' '.1B' $> 0=' .>C1=0 ?>D' <?' +@>' C<A +<%' 1'' +@>' B10<.C@E' <+' +@ ?' + B>!' +@<+' +' J<?' 0'>. 1.' +1' ?>,>.<%' C + >?' 0' J><%+@ <0D' A1A#%<+ 10!' <0D' J<?' >,>0' %>??' '.>F#>0+>D' +@<0' ?1B>' 1+@>.?!' <?' <%%<D1% D' '1.' >K<BA%>!' <?' <' .1E<%' .>? D>0C>

0' +@>' ?+' 1'' /#%E!' J@ %>' +@>' C1#.+' J<?' <+' 1.P D1,<!' D >D %'10?1' D>' <. %%1!' +@>' '<C+ 1#?' .C@$?@1A' 1'' 1%>D1!' J@1' C10+. $#+>D' B1.>' +@<0' <0E' 1+@>.' +1' .< ?>' ?<$>%%<' +1' +@>' +@.10>!' <0D' J@1!' J +@' +@>' ?<B>' <.B!' @<D' J>%%' 0 =@' @#.%>D' @>.' '.1B' + ' >' A<??>D' +@>' C%1?>' 1'' @ ?'% '>' 0' .>+ .>B>0+' <0D' D ?=.<C>' <+' @ ?' +1J0' 1'' %C<%<' D>' >0<.>?!' J@>.>' @>' D>,1+>D' @ BP ?>%'' +1' ?C >0C>!' >?A>C <%%E' +1' <%C@EBE'L' 0' J@ C@' %%#?1.E' A#.?# +' @>' ?' ?< D' +1' @<,>' ?F#<0D>.>D' @ ?' A. 0C>%E' .>,>0#>?' J +@' ?#C@' A.1D =<% +E' <?' +1' %><,>' +@>B' >0C#B$>.>D' J +@' <' @><,E' D>$+' >' J<?' ?#CP C>>D>D' 0' +@>' A. B<CE' $E' @ ?' <0C >0+' . ,<%' 10' 5>D.1' 10G<%>G' D>' >0D1 '<' <.D 0<%' 1'' A< 0W %' A.>%<+>' J@1?>' >0%<.=>D' <0D' %'%(, $ ' , >J?' =< 0>D

@ B D>?>. ,>D <?C>0D<0CE 0 +@> C1#0C % 1 @ ? ?1 ,>P .> =0? T

@> BA1.+<0C> 1 +@> .D1B>?+ C C10C>.0? D D $1 A.>,>0+ >.D 0<0D <0D ?<$>%% ' .1B = , 0= < , = P %<0+ <++>0+ 10 +1 J@<+ J<? A<?? 0= <$.1<D @> C10'% C+ 0= .>%<+ 10? =.1J 0= 1#+ 1 +@> '>#D<% ?E?+>B 1CC#A >D B1?+ A. 0C>? + %% +@> C%1?> 1 +@> ' '+>>0+@ C>0+#.E +11 C%1?>%E <+ @1B> +1 <%%1J +@>B 1'+>0 +1 +#.0 +@> . >E>? $>E10D +@> $1.D>.? 1 +@> . 1J0 +>.. +1. >? @ ? ?E?+>B J<?! 0D>>D! 01J .<A D%E B>%+ 0= <J<E #+ 1# ? ; B<E A>.@<A? $> .P =<.D>D <? +@> ' .?+ B10<.C@ J@1 ?@1J>D <0E+@ 0= % H> <0 >K+>0D>D 0+>.>?+ 0 #.1A><0 A1% + C? > 0'1.B>D @ B?>%'1 +@> 0+>. 1. A.1C>>D 0=? 1 B1?+ 1 +@> 0> =@$1#. 0= C1#.+?! $E B><0? 1 ?>C.>+ <=>0+? J@1B @> A>0? 10>D +@>.> >.D 0<0D 1$+< 0>D < ? B %<. .>?#%+ $E +@> B1.> @101#.<$%> >KA>D >0+ 1 .>? D>0+ >B$<?? >?! J@ C@ @> ? ?< D +1 @<,> 0+.1P D#C>D L+ < A.<C+ C> J@ C@! J@ %> + @<? =.><+%E '<C P % +<+>D C1B B>.C <% 0+>.C1#.?>! @<? ?>. ,>D +1 A>.A>P +#<+>' '. >0D%E .>%<+ 10? $>+J>>0 D '>.>0+ C1#0+. >?! $E <CC#?+1B 0= +@>B +1 ?>++%> +@> . D '>.>0C>? $E 0>=1+ <+ 10 .<+@>. +@ 0 +@> ?J1.D

@> A1? + 10 1 +@> +<% <0 ?+<+>?! <+ +@ ? A>. 1D

L % %G% 5)5 G% *) 5! % %% '!,,! 5 : %) *%5)% 3! I !J Q F,! J) ! 5 9,(2$ 0 5 ; $ '% : % E%) 5 *% ; , . A B 5 -+ && #" P%); , % , ! ! J :%,)5 G 5 *% ; (,) C ,)) ' , A # . && / 4%+% ! %0, DI ! J) 0 1 A 3%), A B 5 # .)% 5 %.% % 1! .!3! <)5! ,'A \(! 0 1; 5! / ! J , % C , 3, ! 4% %5 ,'4C% %) 4 @ 6I! ,! (! ,!

0><.' .>%<+ 10?@ A'T1'' +@ ?' A. 0C>??' +1' 1# ?' ; ' =<,>' +@<+' B10<.C@' <0' <$?1%#+>' 0'%#>0C>!' 0' +@>' C1#0C %?' 1'' <,<..>' >' B<D>' #?>' 1''+@ ?' +1' $. 0=' <$1#+' <' B<.P . <=>' $>+J>>0' +@>' E1#0=' H 0=!' .<0C ?' 5@1>$#?!' <0D' /1<00<' >%+.<0>"<!' ?<$>%%< ?' '1.B>.' C1BA>+ +1.' '1.' +@>' C.1J0' 1'' <?+ %>!' 01+J +@?+<0D 0=' +@ ?' A. 0C>??' @<D' %10=' ? 0C>' +<H>0' +@>' ,> %' 0' +@>' C10,>0+' 1'' <0+<' %<.<' <+' 1 B$.<' +' ?' 01+' ><?E' +1' #0.<,>%' +@>' +1.+#1#?' A1% + C?' 1''S 0=' 1# ?' @>' A<0 ?@' J. +>.?' BA#+>' +1' @ B' +@>' D>? =0' 1''>0<$% 0=' /1<00<' $E' +@ ?' <%% <0C>' +1' >?+<$% ?@' @>.' A.>+>0? 10?' +1' +@>' <?+ % <0' +@.10>!' 1.' <+' %><?+' +1' = ,>' ?#C@' >BA%1EB>0+' +1' +?' A.>?>0+' A.1A. >+1.?' <?' ?@1#%D' >''>C+#<%%E' A.>,>0+' +@>B' '.1B' D ?+#.$ 0=' @ B' 0' +@>' A1??>?? 10' 1'' 1#M' ? %%10!' 1J>,>.' +@ ?' B<E' $>!' @ ?' 0+. =#>?' J +@' 51.+#=<%' J>.>' D ?C%1?>D' +1' >.D 0<0D' $E' C>.+< 0' 01$%>?' 1'' +@<+' C1#.+!' J +@' J@1B' @>' J<?' 0' ?>C.>+' C1..>?A10D>0C>' @>' A<0 ?@'?1,> &> =0?!' 0' 1.D>.' +1' C1#0+>.<C+' +@ ?' ?C@>B>!' 1''>.>D' +@>' @<0D' 1''+@> .' 1J0' D<#=@+>.' /1<00<!' <'+>.J<.D?' B1+@>.' 1'' @<.%>?' !' +1' +@>' S 0=' 1'' <,<..>' -/<0' !' 64 *' #+' <%%' 0>=1+ <+ 10?' .>%<+ ,>' +1' +@ ?' B<++>.' J>.>' >,>0+#<%%E' D>'><+>D' $E' +@>' ?#DD>0' D><+@' 1'' +@ ?' E1#0=' A. 0C>!

%)' %((,5)%' B $)5' 0 1' %' %)('%' %' $) C %' , 4)' D H!' C' A' ,)(' %'5 >' ,) ' A,' B,0 ' , ' 0' $,' = ' A' 0' B ' (A,5)'%')' %)5' 5%$'A ' %(A' 0'BA 1',)' $)' $((5 5' ' A ' (B)' 0' %.%)> !' %)(,' A 4$' % ; ( )5 5' A ' A) ')' A ' 5 1, ' 0' A,' ' %)51 A ') %

D/H!' 8 ' B% ' 5, ,)'$, A 5' 4C' A,' 3)%' ' %(' %)5' 4 %$ C' %)5' 3 (,% C' 4C' A ' ' 5)' $; ' 0' A, ' A%, ' 0 1' B ,,(A' ' (5,)'' ') ' A ' 5 ,. 5' $' (') 1)' 0' A 4$!' ' ,' B% ' %)' %)(%')%1 ' A B . ' $(A' %)' C1 'C' 1%C' 4 ' A $'A' 1 BA% ' 0%)(,0$!

01+ J +@1#+ ?+.10= ?#?A C 10? 1'TA1 ?10 > J<? ?#CC>>D>D 10 +@>+@.10> $E @ ? ? ?+>. <+@<. 0> 5.1A1? + 10? J>.> +@>0 B<D> $E >.D 0<0D <0D ?<P $>%%< '1. +@> B<.. <=> 1 '+@ ? A. 0C>??! +@>0 +@ .+>>0 E><.? 1 '<=>! J +@ +@> . 0'<0+ ?10 /1@0! @> .M<AA<P .>0+ 1 '+@> . #0 +>D B10<.C@ >? T #C@ <0 <%% <0C>! J@ C@ J1#%D $. 0= #0D>. 10> =1,>.0B>0+ 0<+ 10? C1..>?A10D 0= 0 1. = 0! %<0=#<=>! =>0>.<% @<$ +? <0D %1C<% 0+>.>?+?! A.>?>0+>D =.><+ <0D 1$, 1#? <D,<0P +<=>? +&J<? @1J>,>. >,<D>D $E +@> F#>>0 D1J<=>.! J@1 ?+ %% <C+>D <? .>=>0+! 10 +@> A.>+>K+ 1 '+ D ?A<. +E 1 '+ <=> 0 +@> A<.+ >? 0'1.B<+ 10 $> 0= ?110 <'+>. .>C> ,>D +@<+ 1# ? ; J<? +<H 0= B><?#.>? +1 B<H> @ B?>%'B<?+>. 1 '+@> ?+.10= A%<C>? 0 <,<..>! ?<$>%%< +.<0?'>..>D @>. .>? D>0C> +1 +@> '.10+ >. +1J0 1 ' 1=.101! A.>A<.>D +1 .>? ?+ $E <.B?! ' 0>C>??<.E! +@> 1CC#A<+ 10 1 '+@<+ C1#0+.E $E @>. 0? P D 1#? <0D A1J>.'#% 0> =@$1#. @> D><+@ 1 '+@> S 0= 1 ' .<0C>! J@ C@ 1CC#..>D 01+ %10= <'+>.! '1.+#P 0<+>%E .>% >,>D +@> ?1,>.> =0? '.1B <AA.>@>0? 10? 1 '<0E B B>D <+> <001E<0C> 10 +@<+ F#<.+>. '

B D +@> . B<0 '1%D C10C>.0?! >.D 0<0D <0D ?<$>%%< H>A+ +@> . +@1#=@+? <0K 1#?%E $>0+ 10 +@> . =.><+ >0+>.A. ?>! +@> C10F#>?+ 1 ' .<0<D< +

L 5,)%)5%)5 %4 %A%5 % A, ,1 0 $ (A,5)< A)0%))? A) 0 $ %)5 % A% 0 C % 5 4$ BA 5,5) ,. (1 A $((; ,)%)5 A)0%) % %4 % ? %))%%)5 % ,%< A % 4 1%% * 5 .%5$,) ' A $1; 1 0 DI !

))% 5 %.% % ,4! FFF,.! (!,,! ,4! FFF.! (!,! J 8, 5 %.% 3% $) ; (%, 5$,< 5! 33! 6/I 6/H! J * 5 8, 5 ; $'% 1!,,,! 33! D I J DD ! J $ '% *) 5 C *%! 3! HH! J %,%)%8, 5 > 3%A% 1 ,,! 3!66 !

C10=.>??' =>0>.<% X1 '' +@>' D>A#+ >?' 1 '' +@>' @>. B<0D<D!'
@>%D' <+' 5 0+1!' <+' +@>' C1B B>0C>B>0+' 1 '' +@>' A.>?>0+'
E><.!' 64 !' J +@' +@>' , >J' 1 '' .>'1. B 0=' C>.+< 0'
<$#?>?' 0' +@<+' 0?+ +#+ 10!' <' % $>.<% =.<0+' J<?' B<D>'
1 '' > =@+' +@1#?<0D' B>0' <0D' ? K+>>0' +@1#?<0D' $><?+?'
1 '' $#.D>0!' '1.' +@>' A#.A1?>' 1 '' C10,>E 0=' ?#AA% >?'
+1' +@>' =<.. ?10' 0' %@< B < ' $#+' +@>' ?1,>.> =0?' >KP
A>. >0C>D' =.><+' >B$<..<??B>0+' '.1B' +@>' J<0+' 1 ''
'#0D?' @>.>' ?' A.1$<$%E' 01' A>. 1D' 0' J@ C@' +@>'
A. 0C>?' 1 '' #.1A>' '>%+' ?1' ?>0? $%E' +@> .' 1J0' A>0#.E'
<?' <+' +@>' C%1?>' 1 '' +@>' ' '+>>0+@' C>0+#.EL' J@>0' +@>'
D>B>?0>?' 1 '' +@>' C.1J0' @<, 0=' $>>0' ,>.E' =>0>.<%%E'
J<?+>D' $E' +@>' %<, ?@0>??' 1.' B$>C % +E' 1 '' +?' A.1P
A. >+1.?!' 01' ?#$?+ +#+>' @<D' <?' E>+' $>>0' '1#0D' 0'
+@<+' ?><.C@ 0=' <0D' J>%%M<..<0=>D' ?E?+>B' 1 ''+<K<+ 10'
J@ C@' 1$+< 0?' <+' +@>' A.>?>0+' D<E' @>' A<0 ?@'
?1,>.> =0?!' 01+J +@?+<0D 0=' +@>' >C101BE' J@ C@' +@>E'
@<D' 0+.1D#C>D' 0+1' +@>' ' 0<0C>?!' '>%+' +@>' A.>??#.>'
1 '' +@>?>' >B$<..<??B>0+?' A>C#% <.%E' <+' +@>' A.>?>0+'
"#0C+#.>' @>' B< 0+>0<0C>' 1 ''+@>' .1E<% =#<.D' <0D'
1 '' +@>' ,<?+' 0<+ 10<% A1% C>' 1 '' +@>' @>. B<0D<D!' +@>'
0C>??<0+' B % +<.E' 1A>.<+ 10?' 1 '' +@>' %<+>' C<BA< =0!'
+1=>+@>.' J +@' +@>' >F# AB>0+' 1 '' <' 0<,E!' 01+' B>.>%E'
'1.' J<.!' $#+' '1.' B<. + B>' D ?C1,>.E!' J>.>' ?1' B<0E'
C1A 1#?' D.< 0?' 1 '' +@>' >KC@>F#>. T' 0D>.' +@>?>' C .P
C#B?+<0C>?' +@>E' 1$+< 0>D' '.1B' +@>' A1A>' <' =.<0+' 1'

Q' 4,), ' $1' : ! 5 'E %B% '3 ($,) '% '. C;
T' 5! ' , ! (%5!,,! ,4 ',,! %' ' 0'5, (. C'%)5'( )2$ ' '
(!,! A ' *%)%, ' BA,(A'B, '4 ' A '
,5 ' A '% 1%5%,)' A ' ; $4+ (' 0'1 '3% ,($%') ,(' '
5, %) %) ' %'0 '$)5 ' 5 A %0 !

*'

! ' D#C<+?!' +1' $>' .< ?>D' 1#+' 1'' +@>' >CC%>? <?+ C<%' .>,>0#>?' 0' <?+ %>' <0D' .<=10 ' ' $#%%' 1'' C.#?<D>' J<?' <%?1' A#$% ?@>D' $E' @ ?' @1% 0>??!' C10+< 0 0='0#B>P .1#?' 0D#%=>0C>?' '1.' ?#C@' <?' ?@1#%D' $><.' <. B?' <=< 0?+' +@>' 0' D>%!' <?' J>%%' <?' +@1?>' J@1' ?@1#%D' A.>'>.' +1' C1B B#+>' +@> .' B % +<.E' ?>., C>' '1.' +@>' A<EB>0+' 1'' <' ?#.<' 1'' B10>E' ' 0' <DD + 10' +1' +@>?>' .>?1#.C>?!' +@>' =1,>.0B>0+' J<?' >@<$%>D' 10' +?' 1J0' C.>D +!' "#?+ ' >D' $E' +@>' A#0C+#<% +E' J +@' J@ C@' +' @<D' .>D>>B>D' +?' A<?+' >0=<=>B>0+?!' +1' 0>=1+ <+>' C10? D>.<$%>' %1<0?' J +@' ?>,>.<%' J><%+@E' 0D , D#<%? T

+@' +@>?>' '#0D?' +@>' ?1,>.> =0?' >0+>.>D' 0+1' >KP +>0? ,>' <..<0=>B>0+?' '1.' +@>' >0?# 0=' C<BA< =0!' C<#? 0=' C<0010!' <'+>.' +@>' .#D>' C10?+.#C+ 10' 1'' +@<+' <=>!' +1' $>' '<$. C<+>D' <+' #>?C<!' <0D' <' %<.=>' F#<0+ +E' 1'' ?+10>' $<%%?!' +@>0' A. 0C A<%%E' #?>D!' +1' $>' B<0#P '<C+#.>D' 0' +@>' >..<' D>' 10?+<0+ 0<L' J@ %>' +@>' B<=<G 0>?' J>.>' C<.>'#%%E' A.1, D>D' J +@' <B B#0 + 10' <0D' B % +<.E' ?+1.>?

0' >,>0+' 01+' #0J1.+@E' 1'' 01+ C>' ?' .>C1.D>D' $E' 5#%=<.' <?' @<AA>0 0=' <$1#+' +@ ?' + B>' ' C1B B10' ?1%D >.!' 0<B>D' /#<0' D>' 1..<%!' C10+. ,>D!' #0D>.' '<%?>' A.>+>0C>?!' +1' 1$+< 0' '.1B' +@>' S 0=' 1'' .<0<D<' <' 0#B$>.' 1'' @. ?+ <0' C<A+ ,>?!' J +@' <' %<.=>' ?#B' 1'' B10>E!' J +@' J@ C@' @>' >?C<A>D' 0+1' 0D<%#? <' @>

Q' $ '% '*),(%5' ' C ' A ' 3 %@' 0' % ' A ' 5 .,(' 0' *% !'3!' HH! J % ,%)%' 8, '5 ' Y' (%,)',)'), $'3) 'BA ' 3%)%' 1!',,!'3!'66 ! ( ) ,. ' ' ($ C' 0%. $' B, A' % A ' % ,%)% 1 ' '5, ; 3 ,)(' 4C' 1,), ,)'' ' A ,' %33 . ' 0' A, ' F3 5,)' 0' A ') (, , ![
(A$ (A' 0 ' %, ,)'' 1) C' BA,(A

B<0‘ J<?‘ <AA.>@>0D>D‘ $E‘ +@>‘ J<.D>0‘ 1’‘ +@>‘ ‘.10+ >.‘ 1’‘ / <>0L‘ <0D‘ +@>‘ +.<0?<C+ 10‘ $> 0=‘ .>A1.+>D‘ +1‘ +% >‘ ?1,>.> =0?!‘ +@>E‘ C1BA>%%>D‘ <0‘ >0+ .>‘ .>?+ +#+ 10‘ 1’‘ +@>‘ B10>E!‘ <0D‘ C10?>0+>D‘ +1‘ ?#C@‘ <‘ .<0?1B‘ ‘1.‘ +@>‘ % $>.<+>D‘ @. ?+ <0?‘ <?‘ +@>‘ S 0=‘ 1’‘ .<0<D<‘ ?@1#%D‘ D>B<0D‘ @ ?‘ <C+‘ 1’‘"#?+ C>!‘ +‘ ?@1#%D‘ $>‘ .>B>BP $>.>D!‘ 1CC#..>D‘ 0‘ <0‘ <=>‘ J@>0‘ +@>‘ C@#.C@‘ +?>%’‘ ?+11D‘ .><DE‘ +1‘ ?<0C+ 10‘ <0E‘ $.><C@‘ 1’‘ ‘< +@!‘ @1JP >,>.‘ =%<. 0=!‘ +1J<.D?‘ @>.>+ C?‘ <0D‘ 0’ D>%? T

@ %>‘ +@>‘ C1#.+‘ J<?‘ D>+< 0>D‘ 0‘ +@>‘ 1.+@!‘ + D 0=?‘ J>.>‘ .>C> ,>D‘ 1’‘<‘ .>,>.?>‘ ?#?+< 0>D‘ $E‘ +@>‘ A<0 ?@‘ <.B?!‘ J@ C@‘ A%#0=>D‘ +@>‘ 0<+ 10‘ 0‘ ?1..1J‘ ‘<.‘ D>>A>.‘ +@<0‘ +@<+‘ 1CC<? 10>D‘ $E‘ +@>‘ .1#+‘ <+‘ 1"<‘ 10‘ %10G1‘ D>‘ <.D>0<?!‘ .<0D‘ <?+>.‘ 1’‘ +‘ /<B>?!‘ <0‘ 1%D‘ <0D‘ C10’ D>0+ <%‘ ?>.,<0+‘ 1’‘ +@>‘ C.1J0!‘ @<D‘ $>>0‘ 0+.#?+>D‘ J +@‘ +@>‘ D>’>0C>‘ 1’‘ +@>‘ ‘.10+ >.‘ 1’‘ C "<‘ @ %>‘ 10‘ +@ ?‘ ?+<+ 10‘ @>‘ J<?‘ ?+.10=%E‘ #.=>D‘ +1‘ B<H>‘ <‘ D>?C>0+‘ 10‘ +@>‘ >0, .10?‘ 1’‘ <%<=<‘ $E‘ @ ?‘ <D<% D>?‘ 1.‘ ?C1#+?!‘ B>0‘ J@1!‘ $> 0=‘ ‘1.‘ +@>‘ B1?+‘ A<.+‘ 11. ?@

L‘ *$ %‘ 5‘ ‘ %%(, ‘ !‘ (!‘ .,,,!‘ J‘ $ ’% ‘ *)‘ 5‘ ‘ C ‘*%!‘ 3!‘ ! ?$%)‘ 5‘ * %‘ ,13 5‘)‘ A‘ ",)’‘ 0‘ : %)%5%‘ 4C‘ 1 %)‘ 0‘ (%,)‘ (5),% ‘ BA,(A‘ A‘ A%5‘ 4 %,) 5‘ 0 1‘ A‘ 3%), A‘ . ,’) ‘ B, A $‘ %)C‘ 3 ,., C‘)‘ A ,‘ 3% ‘ ‘A,‘ 0 %5)‘ ,)),) !‘ A‘ C‘ ,‘ 5‘ ,)‘ %‘ . C‘ 4 ,)5‘ 1%)) ‘ 4C‘ $ ’% ! ‘ 1%C‘) ‘ 4‘ %1, ‘ ‘ 1); ,)‘ A ‘ %‘ 5 $’A C‘ 0 %‘ 3 >‘ 0 1 5‘ 4C‘ %) A ‘*% , ,%)‘); . C‘ 0‘ 1$(A‘ A,’A ‘ %)@‘) ?$%)‘ 5‘ E %!‘ A, ‘ @),’A ‘ BA, ‘ ( ). ,)’‘ B, A‘ (%,)‘ , A‘ (%.%, ‘,)‘ A ‘ A%1; 4 %‘ B% ‘ ‘1$(A‘ (%)5%, 5‘ 4C‘ A‘ 0 5 1‘ B, A‘ BA,(A‘) ‘ 0‘ , 1‘ % 5‘ A‘,1 1%($ % ‘( ); (3,)‘ A% ‘A ‘’%. ‘ A ‘(, ($1; (, 5‘ 5 ’‘ A ‘ , ‘ %)5‘ 1 ‘A,1‘ %‘ A% 3‘ 4 B‘)‘ A ‘ A %5‘ B, A‘ A, ‘ B 5!‘ 5,)%)5‘ %C ‘ >‘)% 5 G‘ BA ‘ ‘ A ‘ C‘ B% ‘ 1$(A‘ ’ % ,0, 5‘ B, A‘ A ‘ F3 , ‘ %)5‘ (13) 5‘ A ‘’ 5‘ @),’A ‘ B, A‘ 1%)C‘ A) $!

D>?>.+>.?' 1.' .>0>=<D1>?!' J>.>' >B A%1E>D' $E' +@>' $1.D>.'
C@ >'?' +1' .>C1001 +.>' +@>' >0>B E ?' C1#0+.E!' 1.' +1' =# D>'
+@>B' 0' +@> .' B<.<#D 0=' >KA>D + 10?' @>' D ?+. C+'
<.1#0D' <%<=<' J<?' '<B1#?' #0D>.' +@>' <.<C>0?' '1.'
+?' ? %H' B<0#'<C+#.>?!' 1'' J@ C@' +' <00#<%%E' B<D>'
%<.=>' >KA1.+?' +1' 1+@>.' A<.+?' 1'' #.1A>' +' J<?' +1'
$>' <AA.1<C@>D' $E' +.<,>.? 0=' <' ?<,<=>' ? >..<!' 1.'
C@< 0' 1'' B1#0+< 0?!' C<%%>D' +@>' K<.F# <!' J@1?>'
B<.= 0' 1CC<? 10<%%E' <''1.D>D' =11D' A<?+#.<=>!' <0D'
J<?' ?A. 0H%>D' 1,>.' J +@' 11. ?@' , %%<=>?' '+>.'
+@.><D 0=' +?' D>' %>?!' +' J<?' A.1A1?>D' +1' .>+#.0' $E' <0'
1A>0' .1<D' +@<+' +#.0>D' +@>' ?1#+@>.0' >K+.>B +E' 1'' +@>'
? >..<' <%10=' +@>' ?><M?@1.>' @>.>' J<?' % ++%>' +1' $>'
<AA.>@>0D>D!' +' J<?' ?+<+>D!' '.1B' A#.?# +!' ? 0C>' <P
%<=<' J<?' <%B1?+' J@1%%E' #0A.1, D>D' J +@' C<,<%.E T'

@>' =.<0D' B<?+>.!' '<%% 0=' 0' J +@' +@>' A.1A1? P
+ 10!' C1B B#0 C<+>D' +' +1' +@>' A. 0C A<%' C@ >'?' 10' +@>'
$1.D>.?L' <B10=' 1+@>.?!' +1' 10' 5>D.1' >0. F#>G!'
D>%<0+<D1' 1'' 0D<%#? <!' 10' /#<0' D>' %,<!' 1#0+'
1'' '#>0+>?!' 10' %1OG1' D>' =# %<.!' <0D' +@>' <.P
F# ?' 1'' <D G' @>?>' 01$%>B>0!' C1%%>C+ 0=' +@> .' .>P
+< 0>.?!' .>A< .>D' +1' 0+>F#>.<!' J@>.>' +@>' .<0H?' J>.>'
F# CH%E' ?J>%%>D' $E' .>C.# +?' '.1B' 1.D1,<!' >, %%>!'
; >.>G!' <0D' 1+@>.' C + >?' 1'' 0D<%#? <!' J@1?>' C@ P
,<%.E' <%J<E?' .><D %E' <0?J>.>D' +@>' ?#B B10?' +1' <0'
>KA>D + 10' 1,>.' +@>' $1.D>. '

L' $ '%F' *),(%5' ' C ' ' #$,)($%')%' 5' ., 5 '
*% ,(' 3!' ! J !' %,) ' ' % ' '2$,)(' '5,%!' ! J'
,($ ' * %' 1 %4 ' 0 !' ,) , ' $1' * % $1'
/ ! J N$, %')% '5' %')' %' !' ' , %4!' (!',,' ,4!',,!'
1',.!' 0 ' (!',,!' $ A

D

6 : 0 >DO>?D<E +@> :+@ 1'' <.C@! +@ ?
=<%%<O+ % ++%> <.BE B<.C@>D '1.+@ '.1B +@> =<+>?
1'' O+>F#>.< @> ,<O J<? O+.#?+>D +1 +@> DM
>%<O+<D1 >O. F#>G <OD 1O %1OG1 D> =# %<.
@> C>O+.> D , ? 1O? J>.> %>D $E +@> <.F# ? 1''
<D G <OD +@> 1#O+ 1'' '#>O+>?! <OD +@> .><.P
=#<.D $E +@> .<OD <?+>.' 1'' + /<B>?' @>
O#B$>.' 1'' '11+! J@ C@ ? #OC>.+< O! <AA><.? +1 @<,>
$>>O C1O? D>.<$%E %>?? +@<O +@<+ 1'' +@> @1.?>! J@ C@
<B1#O+>D +1 <$1#+ ! ! C1O+< O O= +@> '%1J>.' 1''
OD<%#? <O HO =@+@11D! +1=>+@>.' J +@ +@> <."<E 1''
+! /<B>?! +@> B1?+ 1A#%>O+ <OD A1J>.'#% 1'' +@>
A<O ?@ B % +<.E 1.D>.?' >,>.! ?<E? <O .<=1O>?>
@ ?+1. <O! @<D +@>.> $>>O ?>>O O +@>?>+ B>?' <' B1.>
?A%>OD D $1DE 1''C@ ,<%.E L <OD ?#C@ J<? +@> .' C1O' P
D>OC>! @> <DD?! +@<+ +@>E D>>B>D +@>B?>%,>? O, OP
C $%> <=< O?+ <OE '1.C> J@ C@ +@> 1?%>B? C1#%D
$. O= <=< O?+ +@>B ' @> %><D>.? +11H C<.> O1+ +1
>OC#B$>.' +@> B1,>B>O+? 1'' +@><.BE J +@ <.+ %%>.E!
C<BA >F# A<=>! 1.' >,>O B#C@ '1.<=> <OD A.1, ? 1O?!
'1.' J@ C@ +@>E +.#?+>D +1 +@> O,<D>D +>.. +1.ET '
O#B$>.' 1'' A>.?1O?! @1J>,>.! '1%%1J>D O +@> +.< O!
J@1! O'%#>OC>D .<+@>.' $E D>? .> 1'' =< OT +@<O 1''
=%1.E! @<D C1B> A.1, D>D J +@ B1O>E <? J>%% <?
C1B B ?? 1O? '.1B +@> .' '. >OD?! '1.' +@> A#.C@<?> 1''
. C@?A1 %! J@>+@>.' 1'' ?%<,>?! ?+#''?! 1.' "> J>%? J@ C@
+@>E >KA>C+>D J1#%D $> J1O $E +@> =11D ?J1.D? 1''
+@> .' C1B.<D>?! <? O %@<B< U

L 1%5 G 8, 5 5 C)5,%5% *),(% 5 % '
C * *% ,(! ! (! F! J %> 5) 0 / ! J N$, %

'+>.ʻ +.<,>%% 0"ʻ J +% Tʻ % ++%>ʻ 0+>. B ?? 10ʻ +@.1#=@ +@>ʻ 0 =@+!ʻ +@>ʻ <. B Eʻ >0+>.>Dʻ +@>ʻ J 0D 0=ʻ D>' %>?ʻ 1'ʻ +@>ʻ K<.F# <!ʻ J@>.>ʻ +@> .ʻ A.1=.>??ʻ J<?ʻ 0>C>??<. %Eʻ ?1ʻ B#C@ʻ BA>D>Dʻ $Eʻ +@>ʻ C@<.<C+>.ʻ 1'ʻ +@>ʻ =.1#0D!ʻ +@<+ʻ B1?+ʻ 1'ʻ +@>ʻ 0@<$ +<0+?ʻ 1'ʻ +@>ʻ , %%<=>?ʻ +@.1#=@ʻ J@ C%ʻ +@>Eʻ "%<??>Dʻ @<Dʻ 1AA1.+#0 +Eʻ +1ʻ >?C<A>!ʻ J +@ʻ +@>ʻ =.><+>.ʻ A<.+ʻ 1'ʻ +@> .ʻ >''>C+?!ʻ +1ʻ +@>ʻ 0<CC>?? $%>ʻ '<?+0>??>?ʻ 1'ʻ +% >ʻ B1#0+< 0?ʻ @>ʻ A<0 <.D?!ʻ <'+>.ʻ A%#0D>. 0=ʻ +@>ʻ D>?>.+>Dʻ @<B%>+?ʻ 1'ʻ J@<+>,>.ʻ .>B< 0P >D!ʻ <?ʻ J>%%ʻ <?ʻ 1'ʻ +@>ʻ '>Jʻ ?+.<==%>.?!ʻ J@>+@>.ʻ B>0ʻ 1.ʻ C<++%>!ʻ '1#0Dʻ ?+ %%ʻ % 0=>. 0=ʻ <$1#+ʻ +@>B!ʻ ?>+ʻ +@>Bʻ 10ʻ ' .>ʻ 0ʻ +@ ?ʻ J<Eʻ +@>Eʻ <D,<0C>D!ʻ B<.H 0=ʻ +@> .ʻ % 0>ʻ 1'ʻ B<.C@ʻ J +@ʻ +@>ʻ #?#<%ʻ D>,<?+<+ 10ʻ +@<+ʻ <CC1.<A<M 0 >Dʻ +@>?>ʻ '>.1C 1#?ʻ '1.<E?!ʻ #0+ %ʻ +@>ʻ C1%#B0?ʻ 1'ʻ ?B1H>ʻ <0Dʻ ' .>ʻ J@ C@ʻ .1?>ʻ <$1,>ʻ +@>ʻ @ %%M+1A?ʻ <0P 01#0C>Dʻ +1ʻ +@>ʻ A>1A%>ʻ 1'ʻ <%<=<ʻ +@>ʻ 0><.ʻ <AA.1<C@ʻ 1'ʻ <0ʻ >0>B E

@>ʻ 1%Dʻ H 0=!ʻ #%>Eʻ $#%ʻ <C>0!ʻ J@1ʻ %<Eʻ <+ʻ +@ ?ʻ + B>ʻ 0ʻ +@>ʻ C +Eʻ J +@ʻ <ʻ 0#B>.1#?ʻ <0Dʻ J>%%M<AA1 0+>Dʻ $1DEʻ 1'ʻ @1.?>!ʻ C10+.<.Eʻ +1ʻ +@>ʻ .>A1.+?ʻ 1'ʻ +@>ʻ <D<% D>?!ʻ J1#%Dʻ @<,>ʻ .#?@>Dʻ '1.+@ʻ <+ʻ 10C>ʻ <+ʻ +@> .ʻ @><D!ʻ @<Dʻ @>ʻ 01+ʻ $>>0ʻ D ??#<D>Dʻ '.1Bʻ +ʻ $Eʻ @ ?ʻ E1#0=>.ʻ $.1P +@>.ʻ $D<%%<@!ʻ J@1ʻ ?ʻ $>++>.ʻ H01J0ʻ 0ʻ @ ?+1.Eʻ $Eʻ +@>ʻ 0<B>ʻ 1'ʻ V<=<%!ʻ 1.ʻ +@>ʻ <% <0+!ʻ O ʻ<0ʻ .<$ Cʻ >A P +@>+ʻ = ,>0ʻ @ Bʻ $Eʻ @ ?ʻ C1#0+.EB>0!ʻ +1ʻ D ?+ 0=# ?@ʻ @ Bʻ '.1Bʻ @ ?ʻ 0>A@>Jʻ +@>ʻ .#% 0=ʻ S 0=ʻ 1'ʻ .<0<D<ʻ 1ʻ +@ ?ʻ A. 0C>ʻ $#%ʻ <C>0ʻ >0+.#?+>Dʻ +@>ʻ C1B B<0D

1!ʻ ,.!ʻ 0 !ʻ ! J N$,,,'%ʻ 0 !>ʻ ')%ʻ 5ʻ ., 5ʻ !ʻ %!ʻ ʻ H6! J 4,,) , ‖ !ʻ : !ʻ 2$,)(!ʻ ʻ 5,%!ʻ *! (!ʻ ,,!ʻ ,4!ʻ ,,!ʻ (!ʻ ,, J #$,)($%>

‘ ‘

1’‘ +@>‘ C1.A?‘ 1’‘ A CH>D‘ C<,<%.E!‘ J +@‘ 0?+.#C+ 10?‘ +1‘ A>0>+.<+>‘ <+‘ 10C>‘ 0+1‘ +@>‘ %1J>.‘ %>,>%‘ 1’‘ +@>‘ ? >..<!‘ <0D‘ >0C1#0+>.‘ +@>‘ @. ?+ <0?‘ >0+<0=%>D‘ 0‘ +?‘ A<??>?!‘ J@ %>‘ <01+@>.‘ D , ? 10!‘ C10? ?+ 0=‘ C@ >’%E‘ 1’‘ <.F#>M‘ $#? >.?‘ <0D‘ <.C@>.?!‘ ?@1#%D‘ +#.0‘ +@>‘ >0>BE?‘ ’%<0H‘ $E‘ =< 0 0=‘ M+@>‘ @> =@+?‘ #0D>.‘ J@ C@‘ @>‘ J<?‘ D>’ % 0=‘ @ ?‘ %<?+‘ C1.A?‘ J<?‘ A%<C>D‘ #0D>.‘ +@>‘ D .>C+ 10‘ 1’‘ >D#<0‘ >0>=<?!‘ <‘ C@ >’‘ 1’‘ @. ?+ <0‘ % 0><=>!‘ <CC1.DP 0=‘ +1‘ >.0<%D>G!‘ <0D‘ J@1‘ B<E‘ A>.@<A?‘ $>‘ D>0+ M&‘ ’ >D‘ J +@‘ +@>‘ >D#<0‘ +@<+!‘ 0‘ +@>‘ %<+>.‘ 11. ?@‘ $<%P %<D?!‘ ?>>B?‘ +1‘ $>‘ ?@<D1J>D‘ ’1.+@‘ <?‘ +@>‘ A>.?10 ’ C<P + 10‘ 1’‘ %1,>‘ <0D‘ @>.1 ?B T

@>‘ <?+ % <0‘ <..<E!‘ 0‘ +@>‘ B><0‘ + B>!‘ J>0+‘ ’1.P J<.D‘ J +@‘ <‘ $#1E<0+‘ <0D‘ .>CH%>??‘ C10’ D>0C>!‘ <0D‘ J +@‘ ,>.E‘ % ++%>‘ ?#$1.D 0<+ 10‘ @>‘ D , ? 10?‘ 1CC#P AE 0=‘ +@>‘ <D,<0C>‘ <0D‘ C>0+.>!‘ D ?<AA1 0+>D‘ 0‘ +@> .‘ >KA>C+<+ 10?‘ 1’‘ $11+E!‘ @<D‘ F# ++>D‘ +@>‘ % 0>‘ 1’‘ B<.C@!‘ <0D‘ D ?A>.?>D‘ 0‘ ?B<%%‘ A<.+ >?‘ 0‘ ?><.C@‘ 1’‘ A%#0D>.‘ 1,>.‘ +@>‘ <D"<C>0+‘ C1#0+.E‘ <0D‘ ?1B>‘ 1’‘ +@>‘ @ =@M‘ B>++%>D‘ E1#0=‘ C<,<% >.?‘ @<D‘ +@>‘ <#D<C +E‘ +1‘ . D>‘ #A‘ 0‘ D>’ <0C>‘ +1‘ +@>‘ ,>.E‘ J<%%?‘ 1’‘ <%<=<‘ @>‘ .<0D‘ <?+>.‘ 1’‘ + ‘ /<B>?‘ J<?‘ +@>‘ 10%E‘ %><D>.‘ J@1‘ H>A+‘ @ ?‘ C1%#B0?‘ #0$.1H>0!‘ <0D‘ B<.C@>D‘ ’1.J<.D‘ 0‘ 1.D>.‘ 1’‘ $<++%>‘ @ 0=?‘ J>.>‘ 0‘ +@ ?‘ ?+<+>‘ J@>0‘ +@>‘ 11. ?@‘TC<,<%.E‘ #0D>.‘ %‘ V<=<%!‘ ?#DD>0%E‘ >B>.= 0=‘ ’.1B‘ 10>‘ 1’‘ +@>‘ B1#0+< 0‘ A<??>?!‘ <AA><.>D‘ $>’1.>‘ +@>‘ <?+10 ?@>D‘ .><.M=#<.D‘ 1’‘ +@>‘ @. ?+ <0?‘ @>

L‘ *)5‘ 1,)%(!‘ 5‘ ‘ 3%’) ‘ 1!‘ ,,,!‘ 33!‘ D>‘> /! %4‘ 1!‘ ,,,!‘ 3!‘ /! J *%>‘ J)% 5 G‘ !‘ (!‘ F! 5)) !‘ 8, !‘5 K 0 ,2$‘ (‘5K >

11.?' ?A#..>D' 10' +1' +@>' <??<#%+!' $#+' +@>' J>%%MD ?C P A% 0>D' C@ ,<%.E' 1'' +'/<B>?' .>B< 0>D' #0?@<H>0 ' 0' +@>' '>.C>' ?+.#==%>' J@ C@' >0?#>D!' +@>' 0D<%#? <0?' $>C<B>'>B$<..<??>D' $E'+@>' 0<..1J0>??' 1''+@>'=.1#0D' 10' J@ C@' +@>E' J>.>' >0=<=>D!' J@ C@' <''1.D>D' 01' ?C1A>' '1.' +@>' B<01>#,.>?' 1'' C<,<%.EL' J@ %>' +@>'

11.?!' +.< 0>D' +1' +@>' J %D' +<C+ C?' 1'' B1#0+< 0' J<.P '<.>!' J>0+' +@.1#=@' +@> .'#?#<%' >,1%#+ 10?!' .>+.><+ 0=' <0D' .>+#.0 0=' +1' +@>' C@<.=>!' J +@' <' C>%>. +E' +@<+' ?1.>%E' D ?+.>??>D' +@> .' 1AA10>0+?!' <0D' <+' %>0=+@' +@.>J' +@>B' 0+1' ?1B>' D ?1.D>.' @>' =.<0D' B<?P +>.!' 0' C10?>F#>0C>!' D>?A<+C@>D' <' B>??<=>' +1' +@>'

<.F# ?' 1'' <D G!' .>F#>?+ 0=' @ ?' ?#AA1.+' @>'%<+P +>.!' A#++ 0=' @ B?>%'' <+' +@>' @><D' 1''?#C@' 1'' @ ?' ?C<+P +>.>D' '1.C>?' <?' @>' C1#%D' @<?+ %E' B#?+>.!' .><D %E' 1$>E>D' +@>' ?#B B10?' ?C>.< 0=' 10' @ ?' <AA.1<C@' +@>' .><%' ?1#.C>' 1''+@>'=.<0D' B<?+>. ?'>B$<..<??B>0+!' @>' ?#CC>>D>D' #' C@<0= 0=' +@>' '>%D' 1'' <C+ 10' $E' D.<J 0=' 1''' +@>' 11.?' +1' <0' 1A>0' .><C@' 1'' +@>',<%P %>E!' J@ C@' <%%1J>D' '.>>' A%<E' +1' +@>' B1,>B>0+?' 1'' +@>' 0D<%#? <0' @1.?>!' J@>0' +@>' C1B$ 0>D' ?F#<D.10?' A.>??>D' ?1' @<.D' 10' +@>' 1?%>B?' <?' ?110' C1BA>%%>D' +@>B' +1' +<H>' .>'#=>' J +@ 0' +@>' D>A+@?' 1'' +@> .' 1J0' B1#0+< 0? T

0' +@>' B><0' J@ %>!' +@>' ?C<++>.>D' +.11A?M' 1'' +@>' <D,<0C>!' <%<.B>D' $E' +@>' .>A1.+' 1'' +@>' <C+ 10!' =.<P D#<%%E' <??>B$%>D' #0D>.' +@> .' .>?A>C+ ,>' $<00>.?!' <0D

L' *)5(' 1,)%(!' 5' ' ,(!' 3!' D! J %5 ' C')5 %5%' %4 ' 1!',,,!' 3!' /! J $>' 5) ' , , % '0 ! / ' '% ' * $,(% 5(' ' C ' *% >

I

'>%% $<CH #A10 +@> .><. C1#0C % 1 J<. J<? +@>0 C<%%>D %% '#.+@>. A.1=.>?? ?>>B>D +1 $> >''>C+#<%%E 0+>.C>A+>D @> C1#0+.E J<? >,>.EJ@>.> 0 <..<? @> B1?+ +@<+ C1#%D 01JM$> @1A>D J<?! +@<+ +@>E B =@+ $> ?#''>.>D +1 .>+ .> #0B1%>?+>D J +@ ?#C@ A%#0D>. <? +@>E @<D <%.><DE <CF# .>D J1 .1#+>? %<E 1A>0 '1. +@ ? A#.A1?>L +@> 10> J 0D 0= <%10= +@> ?><M?@1.>! J D> <0D %>,>%! $#+ C .C# +1#?! <0D ?JYA+ +@.1#=@ +@> J@1%> .<0=> 1 +? 0<..1J >0+.<0C> $E +@> '1.+.>?? 1 <%=< @ ? D>+>.B 0>D +@>B #0@<AA %E +1 A.>'>. +@> 1+@>. .1#+>! $> 0= +@<+ $E J@ C@ +@>E @<D A>0>+.<+>D +@> K<.F# <! 1. .<+@>. <? ?@1.+>. C#+! $E J@ C@ +@> <D<% D>? #0D>.+11H +1 C10D#C+ +@>B +@.1#=@ +? B<G>? T

@> % ++%> <.BE C1BB>0C>D +? .>+.1=.<D> B1,>P B>0+ J +@ #0D B 0?@>D ?A . +L $#+ + J<? 01J >B$<..<??>D J +@ +@> +.<0?A1.+<+ 10 1 +? A%#0D>.! <0D $E +@> 0C.><? 0=D '' C#%+ >? 1 +@> ? >..<! J@ C@! <? +@>E <?C>0D>D +? ? D>?! J<? B<++>D 1,>. J +@ BP A>0>+.<$%> +@ CH>+?! <0D $.1H>0 #A $E '1.B D<$%> .<P , 0>? 1. C@<00>%? C#+ D>>A 0+1 +@> ?1 % $E +@> B1#0P +< 0 +1..>0+? @> 11.? J>.> 01J ?>>0 B#?+>. 0= 0 C10? D>.<$%> 0#B$>.? <%10= +@> @> =@+?L <0D <? +@>E J>.> >KA>.+ B<.H?B>0! $> 0=+.<0>D $E ><.%E <0D <?? D#1#? A.<C+ C>! +@> ?@1+? '.1B +@> . <.F#>M $#??>? <0D C.1??M$1J? '.>F#>0+%E '1#0D ?1B> <??< %P <$%> A1 0+ 0 +@> @<.0>?? 1 +@> A<0 ?@ B>0M<+M

L % ,%)% 1! ,,! 33!)% 5 %( )! 1!,.! 0 ! J $?'% *) 5   ! C *%! 3! 6! J N$, %

<. B?’ +’ %>0=+@!’ +@>’ <. B E!’ +@. 1#=@’ +@>’ +.><C@>. E’ 1.’ =01.<0C>’ 1’’ +@>’ =# D>?!’ J <?’ ?#DD>0%E’ $. 1#=@+’ +1’ <’ @<%+’ $E’ <. . , 0=’ 0’ <’ D>>A’ =%>0’ 1.’ 0C%1?#. >!’ J @1?>’ . 1CHE’ ? D>?’ . 1?>’ J +@’ ?#C@’ $1%DO>??’ <?’ +1’ $>’ ?C<. C>%E’ X A. <C+ C<$%>’ ’1.’ 0’<0+. E!’ B#C@’ %>??’ ’1.’ @1. ?>’ 1’ <DD’ +1’ +@> .’ D ?+. >??>?!’ D<E% =@+!’ J +@1#+’ J @ C@’ +@>E’ C1 DD’ ?C<. C>%E’ @1A>’ +1’ >K+. C<+>’ +@>B ?>%, >?!’ J <?’ ’<?+’ ’<D 0=’ < J <E T

0’ +@ ?’ >K+. >B +E!’ 01’ 1+@>.’ <%+>. 0<+ ,>’ ?>>B>D’ +1’ .>B< 0’ +@<0’ +1’ <++>B A+’ +1’ .>=< 0’ +@>’ .1#+>’ ’. 1B’ J @ C@’ +@>E’ @<D’ D>A<. +>D’ ?’ <%%’ 1+@>.’ C10? D>. <P + 10?’ J >. >’ 01 J’ ?#$1. D 0<+>’ +1’ +@1?>’ 1’’ A>. ?10<%’ ?<’ >P +E!’ +’ J <?’ <=. >>D’ +1’ <$<0D10’ +@>’ ?A1 %’ <CF# .>D’ <+’ ?1’ B#C@’ @<G<. D!’ J @ C@’ =. ><+%E’ .>+<. D>D’ +@> .’ B 1, >P B>0+?’ ?’ +@>E’ A< 0’#%%E’ .>+. <C>D’ +@> .’ ?+>A?!’ +@>’ D<. H0>??’ 1’’ +@>’ 0 =@+’ J <?’ A<. + <%%E’ D ?A>%%>D’ $E’ 0#P B>. 1#?’ ’ .>?’ J @ C@’ $%<G>D’ <%10=’ +@>’ @ %%M+1A?!’ <0D’ J @ C@’ ?@1 J>D’ +@>’ ’ =#. >?’ 1’’ +@> .’ >0>B >?’ ’% ++ 0=’ +1’ <0D’ ’. 1’% H>’ ?1’ B<0E’ ?A>C+. >?’ +’ ?>>B>D!’ ?<E?’ >. M’ 0<%D>G!’ <?’ ’’ +>0’ +@1#?<0D’ +1. C@>?’ J >. >’ =%<0C 0=’ <%10=’ +@>’ B 1#0+< 0?’ +’ %>0=+@!’ +@>’ J @1%>’ $1DE!’ ’< 0+’ J +@’ ’<+ =#>’ <0D’ @#0=>. !’ . ><C@>D’ +@>’ $1. D>. ?’ 1’’ <’ % ++%>’ ?+. ><B’ J @ C@’ ’%1 J>D’ +@. 1#=@’ <’ ,<%%>E!’ J @1?>’ <, >0#>?!’ <?’ J >%%’ <?’ +@>’ . #==>D’ @> =@+?’ $E’ J @ C@’ +’ J <?’ C1B B<0D>D!’ J >. >’ <%. ><DE’ 1CC#A >D’ $E’ +@>’ >0>B E!’ J @1’ A1#. >D’ D1 J 0’ B 0=%>D’ ,1%%>E?’ 1’’ ?@1+!’ ?+10>?!’ <0D’ <. . 1 J?’ 10’ +@>’ @><D?’ 1’’+@>’ @. ?P + <0?’ @>’ C1B A<C+’ B<??’ A. >?>0+>D’ $E’ +@>’ %<++>.

L’ $ ’% ’ *)’ 5 ’ ’ C ’ 5, ’ 8, !’ 5 ’ 3%)% ’ 1!’ ,,!’ 3!’ +X!’ J ’ : % ,4%C’ * 13) 3!’ !

<''1.D>D' <' ?#.>' B<.H' +1' +@>' <.+ %%>.E' 1'' +@>' 11.?L'
J@ %>' +@>E' '.1B' +@> .' ?C<++>.>D' A1?+10!' <?' J>%%' <?'
+@>' D>'>0C>?' <''1.D>D' $E' +@>' 0<+#.>' 1'' +@>' =.1#0D!'
J>.>' >KA1?>D' +1' % ++%>' <001E<0C>' 0' .>+#.0' 0' <DP
D+10' +1'% =@+>.' B ?? %>?!' +@>' 11.?' 1CC<? 10<%%E' D ?P
%1D=>D' %<.=>' '.<=B>0+?' 1'' .1CH!' J@ C@!' .1%% 0=' J +@'
+.>B>0D1#?' , 1%>0C>' D1J0' +@>' D>C% , +>?' 1''+@>' @ %%?!'
?C<++>.>D' '. =@+'#%' D>?1%<+10' <B10=' +@>' @. ?+<0'
.<0H? T

@>' D ?B<E' 1CC<? 10>D' $E' +@>?>' ?C>0>?!' 1CC#.. 0=' B D?+' +@>' D<.H0>??' 1'' 0 =@+!' <0D' @> =@+>0>D' $E' +@>' ?@. %%' J<.MC. >?' 1''+@>' 11.?' J@ C@' .1?>' <.1#0D' +@>..' 10' >,>.E' F#<.+>.!' ?>>B?' +1' @<,>' C1BA%>+>%E' $>J %P D>.>D' +@>' A<0 <.D?!' >,>0' +@> .' %><D>.?' +' J<?' +@>' B ?'1.+#0>' 1'' +@>' >KA>D+10' +@<+' +@>.>' J<?' $#+' % ++%>' C10C>.+' $>+J>>0' +@>' ?>,>.<%' C1BB<0D>.?!' 1.!' <+' %><?+!' +@<+' +@>.>' J<?' 01' 10>' ?1' A.>>B 0>0+' <$1,>' +@>' .>?+' <?' +1' <??#B>' <#+@1.+E' <+' +@?' <J'#%' B1P B>0+' 1' '<.!' +' J1#%D' ?>>B!' '.1B' <++>BA+0=' >?C<A>!' +@>E' C10+0#>D' 0' +@> .' A>. %1#?' A1?+10!' #0P C>.+<0' J@<+' C1#.?>' +1' +<H>!'#0+%' B D0 =@+L' J@>0' <+' %>0=+@!' <'+>.' @<, 0=' ?>>0' +@> .' $>?+' <0D' $.<,>?+' '1%P %1J>.?' '<%%' +@ CH' <.1#0D' +@>B!' +@>E' D>+>.B 0>D' <+' <%%' @<G<.D?' +1' '1.C>' <' A<??<=>' <C.1??' +@>'?>..<' 0' +@>' '<C>' 1'' +@>' >0>BE' ' >++>.' %1?>' 1#.' % ,>?!R' ?< D' +@>' .<0D' <?+>.' 1'' +' /<B>?!' <DD.>?? 0=' @ ?' B>0!' 0' C#++ 0=' <' J<E' +@.1#=@' +@>' '1>!' +@<0' $>

Q' *$%5' ' %%(, ' !' '5K 3%') ' 1!' ,,,!' 33!' D'
(!' F! J $'%' *),(%'$4,' $;
3%J *%5)) ' 8, !'5K 0)2$

‘ ‘ ‘ ; I

$#+C@>.>D‘ J +@1#+‘ .>? ?+<OC>!‘ % H>‘ C<++%>‘ 0‘+@>‘ ?@<BP $%>?RT

@>‘ <.F# ?‘ 1’‘ <D G!‘ =# D>D‘ $E‘ <‘ +.#?+E‘ <D<% D!‘ <OD‘ <CC1BA<0 >D‘ $E‘ ? K+E‘ 1.‘ ?>,>0+E‘ %<OC>?!‘ J<?‘ '1.+#0<+>‘ >01#=@‘ +1‘ =< 0‘X<‘ C .C# +1#?‘ .1#+>‘ %>??‘ , = %<0+%E‘ =#<.D>D‘ $E‘ +@>‘ >0>BE!‘ J@1?>‘ <++>0+ 10‘ J<?‘ D.<J0‘ +1‘ +@>‘ B1,>B>0+?‘ 1’‘+@>‘ B< 0‘ $1DE‘ 1’‘ +@>‘ <?+ % <0‘ <.BE‘ E‘ B><0?‘ 1’‘ +@ ?‘ A<+@‘ +@>‘ B<.F# ?‘ J +@‘ @ ?‘ % ++%>‘ $<OD‘ ?#CC>>D>D!‘ <'+>.‘ <‘ A< 0'#%‘ B<.C@!‘ 0‘ J@ C@‘ @ ?‘ =11D‘ ?+>>D‘ ?#0H‘ #0D>.‘ @ B‘ 1AA.>??>D‘ J +@‘ J1#0D?‘ <0D‘ '<+ =#>!‘ 0‘ .><C@P 0=‘ <‘ ,<%%>E‘ <+‘ ?1B>‘ D ?+<OC>‘ '.1B‘ +@>‘ ?C>0>‘ 1’‘ <C+ 10!‘ J@>.>‘ @>‘ D>+>.B 0>D‘ +1‘ J< +‘ +@>‘ C1B 0=‘ #A‘ 1’‘@ ?‘ '. >0D?!‘ J@1‘ @>‘ C10' D>0+%E‘ >KA>C+>D‘ J1#%D‘ '1%%1J‘10‘ @ ?‘ +.<CH '

#+‘ +@>‘ =.<0D‘ B<?+>.‘ <0D‘ @ ?‘ <??1C <+>?‘ B ?? 0=‘ +@ ?‘ +.<CH‘ 0‘ +@>‘ D<.H0>??‘ 1’‘ +@>‘ 0 =@+!‘ 1.‘ A>.@<A?‘ A.>'>.. 0=‘ <01+@>.!‘ $.><?+>D‘ +@>‘ ? >..<‘ 0‘ <‘ A<.+‘ J@>.>‘ +‘ A.1,>D‘ >K+.>B>%E‘ D '' C#%+‘ 1’‘ <?C>0+‘ +‘ >,>.E‘ ?+>A‘ +@>‘ %11?>0>D‘ ><.+@‘ =<,>‘ J<E‘ #0D>.‘ +@>‘ A.>??#.>‘ 1’‘+@>‘ '11+L‘ <0D‘ +@>‘ 0'<0+.E!‘ >0D><,1#. 0=‘ +1‘ ?#AA1.+‘ +@>B?>%,>?‘ $E‘ C% 0= 0=‘ +1‘ +@>‘ +< %?‘ <0D‘ B<0>?‘ 1’‘ +@>‘ @1.?>?!‘ +@>‘ "<D>D‘ <0 B<%?!‘ $1.0>‘ D1J0‘ J +@‘ +@>‘ J> =@+!‘ .1%%>D‘ @><D%10=‘ J +@‘ +@> .‘ . D>.?‘ 10‘ +@>‘ .<0H?‘ $>%1J!‘ 1.‘ J>.>‘ A.>C A +<+>D‘ D1J0‘ +@>‘ ? D>?‘ 1’‘+@>‘ 0#B>.1#?‘ .<, 0>?‘ @>‘ 11.?!‘ <%%‘ +@>‘ J@ %>!‘ <,1 D 0=‘ <‘ C%1?>‘ >0C1#0+>.!‘ C10+>0+>D‘ +@>B?>%,>?

L‘ $ '% ‘ *)‘ 5‘ ‘ C ‘ ‘ $ '% ‘ *),(%5‘ ‘ C ‘ 3!‘ !‘ J %5 ‘ C‘)5,%5%‘ (!‘ (,! J 1%5 G‘ !‘ (!‘ F! 5!‘ , , % !‘ 0 !‘ / ‘ / !

J +@' D ?C@<.= 0=' 10' +@>' @><D?' 1'' +@> .' 1AA10>0+?' <0' #0 0+>.B ++>D' ?@1J>.' 1'' B ?? %>?' 1'' >,>.E' D>P ?C. A+ 10 T

+' J<?' 01+' #0+ %' +@>' '1%%1J 0=' B1.0 0=' +@<+' +@>' <?+ % <0?!' @<, 0=' ?#.B1#0+>D' +@>' C.>?+' 1'' +@>' >B P 0>0C>!' $>=<0' +@>' D>?C>0+' 0+1' +@>' 1AA1? +>' ,<%%>E!' J@ C@' +@>E' @<D' +@>' B1.+ ' C<+ 10' +1' 1$?>.,>' J<?' C1B B<0D>D' 10' >,>.E' A1 0+' $E' +@> .' , = %<0+' <DP ,>.?<.E!' J@1' ?>>B>D' 01J' 0' +@> .' >E>?' +1' A1??>??' +@>' A1J>.?' 1'' #$ F# +E' ?' +@>' % =@+' $.1H>' #A10' +@>' +.11A?!' +' .>,><%>D' +@>' J@1%>' >K+>0+' 1'' +@> .' B>%<0C@1%E' C10D + 10' 1J' D ''>.>0+' '.1B' +@>' B<=P 0 ' C>0+' <..<E' J% C@!' $#+' +J1' D<E?' A.>, 1#?!' B<.C@>D' '1.+@' J +@' ?#C@' @ =@' <0D' C10' D>0+' @1A>?' '.1B' +@>' =<+>?' 1'' 0+>F#>.<Z' @> .' .<0H?' +@ 00>D!' +@> .' $. =@+' <.B?' D>'<C>D' <0D' $.1H>0!' +@> .' $<00>.?' .>0+' 0' A >C>?!' 1.' %1?+!O<?' @<D' $>>0' +@<+' 1'' +' /<B>?!' +1=>+@>.' J +@' +?' =<%%<0+' <%'>.>G!' >=1' >C>..<!' 0' +@>' +>.. $%>' A<??<=>' 1'' +@>' A.>C>D 0=' 0 =@+!O +@> .' C1#0+>0<0C>?' <=@<?+' J +@' +>..1.!' '<+ =#>!' <0D' '<B 0>' >?A< .' 01J' J<?' 0' >,>.E' >E>!' <%%' ?#$1.D 0<+ 10' J<?' <+' <0' >0D' 1' 10>!' ?<[?' 5#%=<.!' @>>D>D' <0E' %10=>.' +@>' C<%%' 1'' +@>' +.#BA>+!' 1.' +@>' J<,>' 1'' +@>' $<00>.' <C@' ?1#=@+' 10%E' @ ?' 1JO' ?<'>+E!' J +@1#+' .>=<.D' +1' @ ?' C1B.<D>' 1B>' +@.>J' <J<E' +@> .'<.B?L' @1A 0=' $E' +@ ?' B><0?' +1' '<C % +<+>' +@> .' >?C<A>!' J@ %>' 0' '<C+

$' $ '% ' *),(%5' ' C $',' , ' @) B)' ' A' ,)A%; 3!' ! 4, %) ' 0' A' F% 2$,%' 4C' A' !' .,)'',)'A, ' *)2$ ' 0')%1' 0' ' "#&!' ' #' ' 1 2' : %)%5%' % ' A%' A' ( )' ! 3 2' 'Y' A' 8, ' 0' A' % ; 0' A' ' % ' %$'A ',)' A, %(!Z

+‘ 10%E‘ %>'+‘ +@>B‘ B1.>‘ D>'>0C>%>??‘ <=< 0?+‘ +@>‘ ?@<'+?‘ 1''+@> .‘ >0>B >?’ 1B>!‘ 1AA.>??>D‘ J +@‘ '<+ =#>‘ <0D‘ +>..1.!‘ '>%%‘ D1J0‘ <0D‘ D >D‘ J +@1#+‘ ?1‘ B#C@‘ <?‘ .>P C> , 0=‘ <‘ J1#0D’ @>‘ A<0 C‘ J<?‘ ?#C@!‘ +@<+‘ 0‘ B1.>‘ +@<0‘ 10>‘ 0?+<0C>!‘ +J1‘ 1.‘ +@.>>‘ 11. ?@‘ ?1%P D >.?‘ J>.>‘ H01J0‘ +1‘ C<A+#.>‘ +@. C>‘ +@> .‘ 1J0‘ 0#BP $>.‘ 1''‘ A<0 <.D?’ 1B>!‘ %1? 0=‘ +@> .‘ J<E!‘ ?+.<E>D‘ $<CH‘ +1‘ <%<=<!‘ <0D‘ J>.>‘ B<D>‘ A. ?10>.?‘ $E‘ '>B<%>?‘ 1''+@>‘ C +E!‘ J@1‘ 1,>.+11H‘ +@>B‘ 0‘ +@>‘' >%D?’ +@>.?‘ >?C<A>D‘ +1‘ %@<B<!‘ 1.‘ 1+@>.‘ D ?+<0+‘ A%<C>?!‘ <'+>.‘ J<0D>. 0=‘ ?>,>0‘ 1.‘> =@+‘ D<E?‘ <B10=‘ +@>‘ B1#0+< 0?!‘ ?#?+< 0 0=‘ % '>‘ 10‘ ?#C@‘ J %D‘ @>.$?‘ <0D‘ $>.. >?‘ <?‘ +@>E‘ C1#%D‘ ' 0D!‘ <0D‘ %E 0=‘ C%1?>‘ D#. 0=‘ +@>‘ D<E‘ ‘=.><+>.‘ 0#B$>.‘ ?#CC>>D>D‘ 0‘ .><C@ 0=‘ 0+>F#>.<!‘ <0D‘ <B10=‘ +@>?>‘ B1?+‘ 1''+@>‘ %><D>.?‘ 1''+@>‘ >KA>D + 10‘ @>‘ .<0D& <?+>.‘ 1''‘ +‘ /<B>?!‘ +@>‘ D>%<0+<D1‘ >0. M‘ F#>G!‘ <0D‘ 10‘ %10?1‘ D>‘ =# %<.!‘ >''>C+>D‘ +@> .‘ >?C<A>‘ $E‘ ?C<% 0=‘ ?1‘ A>. %1#?‘ <‘ A<.+‘ 1''+@>‘ ? >..<‘ +@<+‘ +@> .‘ A#.?#>.?‘ C<.>D‘ 01+‘ +1‘ '1%%1J‘ @>‘ 1#0+‘ D>‘ '#>0+>?‘ J<?‘ %>??‘ '1.+#0<+> T‘ @<+‘ 01$%>B<0 ?‘ DP , ? 10‘ J<?‘ ?< D‘ +1‘ @<,>‘ ?#''>.>D‘ B1.>‘ ?>,>.>%E‘ +@<0‘ <0E‘ 1+@>.‘ 0‘ +@>‘ B1.0 0=‘ <'+>.‘ +@>‘ $%11DE‘ A<?P ?<=>‘ 1''+@>‘ B1#0+< 0‘ @>‘ '1#0D‘ @ B?>%''‘ ?#DD>0%E‘ C#+‘ 1''‘'.1B‘ @ ?‘ '1%%1J>.?!‘ <0D‘ ?#..1#0D>D‘ $E‘? K‘ 11. ?@‘ C<,<% >.?!‘ <=< 0?+‘ J@1B‘ @>‘ J<?‘ D>'>0D 0=‘ @ B?>%''‘ J +@‘ D>?A>.<+>‘ C1#.<=>!‘ J@>0‘ +@> .‘ %><D>.!‘ >D#<0

Q‘ .,5 ‘ BA ‘ 5 . ‘) ‘ 0‘ 5) ‘(%4% ! 8% ‘)‘ ' %)>‘ A,‘ 5,% '$ ‘ ‘ A,‘) 4 1%)‘ 5 ‘ (% ' ‘ C‘) ' (, ‘ 5 ‘ 3%G‘ C‘ %C ‘ 0‘ A,1 ‘ Y‘ $ ‘ $)%‘ 5 ‘ % ‘ 5 ‘ '$ %![‘ #$,)($%')% ‘ ! A$)% ‘ %)G% ‘ 5 ‘)$ %‘ 3%A%‘ % !‘ ‘ 2$,)(!‘ ‘ 5,% ! !)‘ $‘ , 13 ‘ C‘ 1$C‘ %4, ‘ C‘ 3 $>

‘

>0>=<?!' ?+.#CH' J +@' +@>' 0>F#<% +E' 1'' +@>' C1B$<+!' $.1H>' 0!' >KC%< B 0=!' Q' 1%DZ' +@ ?' ?' #0J1.+@E' 1'' =11D' H0 =@+? R' @>' <??< %<0+?' ?#0H' $<CH' <$<?@>D' $E' +@>' .>$#H>!' <0D' %>'+' +@>' C1#0+' +1' +@> .' C1BP B<0D>.' 'C%1?>'>0C1#0+>.' +@>0' +11H' A%<C>' $>+J>>0' +@>' +J1' C@ >'?L' $#+' +@>' ?+.>0=+@' 1'' +@>' A<0 <.D' J<?' 01' %10=>.' >F#<%' +1' @ ?' ?A . +!' <0D' <'+>.' <' $. >'' .>? ?+<0C>' @>' J<?' '1.C>D' +1' ?#..>0D>.' +1' @ ?' =>0>.1#?' >0>BE T

@>' <.F# ?' 1'' <D G' @<D' $>++>.' '1.+#0>' '+>.' J< + 0=' + %%' D<J0' '1.' +@>' C1B 0=' #A' 1''@ ?' '. >0D?!' @>' C10C%#D>D' +@<+' +@>E' @<D' >K+. C<+>D' +@>B?>%,>?' $E' <' D ''>.>0+' .1#+>' >' .>?1%,>D' +1' A.1, D>' '1.' @ ?' 1J0' ?<'>+E' <0D' +@<+' 1'' @ ?' '1%%1J>.?!' <0D' $> 0=' ?#AP A% >D' J +@' <' '.>?@' @1.?>!' <CC1BA% ?@>D' @ ?' >?C<A>' <'+>.' +.<,>.? 0=' +@>' J %D>?+' A<??<=>?' 1'' +@>' K<.F# <' '1.' +@>' D ?+<0C>' 1'' '1#.' %><=#>?!' <0D' =1+' 0+1' 0+>M' F#>.<' J +@' $#+' % ++%>' 0+>..#A+ 10' '.1B' +@>' >0>BE' #+!' <%+@1#=@' @>' ?>C#.>D' @ ?' A>.?10<%' ?<'>+E!' +@>' B ?'1.+#0>?' 1'' +@>' D<E' '>%%' @><, %E' 10' @ ?' @1#?>!' '1.' +J1' 1'' @ ?' $.1+@>.?' J>.>' C#+' D1J0' $E' @ ?' ? D>!' <0D' <' +@ .D' $.1+@>.!' J +@' <' 0>A@>J!' '>%%' 0+1' +@>' @<0D?' 1 '' +@>' >0>BEM+

W*)5' 1,)%(!'5' 'U! 5>' ($$1' %((5,)'' ' ., 5' ; 4' 1!',,,!' 3!' I! J N$, %' 1%,) 5' %')'' BA, ' %' 3 ,) ')% ' 5' %')' 1!',.!'0 ! ,)' : %)%5%' $) , ' A ' B%' %); ! J :%,)5 G' 5' *% 4%+%' 1 5' 4C' A ' 3%C1)' 0' ;)% ' !' %) ' DI !' J' $>' . %' A $ %)5' 5 4 %' 0' ' 5!' '% ' *),(%' $4,' $3 %!' J' >' #$,)($%')% ' !' % !' 2$,)(!')% 5 G' !' (!' F! J *% 5)) ' ^'5,%!' ! 8, !' 5M 0 ,2$' ' 5K 3%') ' 0' *$ % 5' ' % %(, ' ! 1!',,,!' 33!' ' /!' J A (!' F! J % 1 ' %C ' A%' A

@>‘ <B1#0+‘ 1’‘ ?%< 0‘ 0‘ +@>‘ +J1‘ D<E?‘ <C+ 10?‘ ?‘ <DB ++>D‘ $E‘ +@>‘ A<0 ?@‘ J. +>.?‘ +1‘ >KC>>D‘ > =@+‘ @#0D.>D!‘ J +@‘ D1#$%>‘ +@>‘ 0B0$>.‘ 1’‘A. ?10>.?‘ @>‘ 11. ?@‘ '1.C>‘ ?‘ ?< D‘ +1‘ @<,>‘ $>>0‘ ?B<%%!‘ <0D‘ +?‘ %1??‘ C1BA<.<+ ,>%E‘ +. '% 0=‘ @>‘ 0#B>. C<%‘ >?+ B<+>?‘ 1’‘+@>‘ A<0 ?@‘ @ ?+1. <0?!‘ <?‘ #?#<%!‘ <AA><.‘ >K+.>B>%E‘ %11?>!‘ <0D‘ +@>‘ 0<..<+ ,>‘ 1’‘+@> .‘&>0>B >?‘ ?‘ +11‘ B><P =.>‘ 0‘ +@ ?‘ A1.+ 10‘ 1’‘+@> .‘ <00<%?‘ +1‘ <%%1J‘ <0E‘ 1AP A1.+#0 +E‘ 1’‘ ,>. ' C<+ 10‘ @>.>‘ ?‘ 01‘ .><?10!‘ @1JP >,>.!‘ +1‘ $>% >,>‘ +@>B‘ 0‘ <0E‘ D>=.>>‘ >K<==>.<+>D

@>‘ $>?+‘ $%11D‘ 1’‘ 0D<%#? <‘ J<?‘ ?@>D‘ 10‘ +@ ?‘ 1CC<? 10‘ B10=‘ +@>‘ ?%< 0!‘ >.0<%D>G‘ .>CH10?‘ +J1‘ @#0D.>D‘ <0D‘ ' '+E!‘ <0D‘ 5#%=<.‘ '1#.‘ @#0D.>D‘ A>.?10?‘ 1’‘F#<% +E!‘ J +@‘ +@ .+E‘ C1BB<0D>.?‘ 1’‘ +@>‘ B % +<.E‘ '.<+>.0 +E‘ 1’‘ + ‘ /<B>?‘ @>.>‘ J<?‘ ?C<.C>%E‘ <‘ '<P B %E‘ 0‘ +@>‘ 1#+@‘ $#+‘ @<D‘ +1‘ B1#.0‘ +@>‘ %1??‘ 1’‘?1B>‘ 10>‘ 1’‘ +?‘ B>B$>.?‘ $E‘ D><+@‘ 1.‘ C<A+ , +E‘ L‘ <0D‘ +@>‘ D ?+.>??‘ J<?‘ 01+‘ <‘ % ++%>‘ <==.<,<+>D‘ $E‘ +@>‘ #0C>.P +< 0+E‘ J@ C@‘ @#0=‘ 1,>.‘ +@>‘ '<+>‘ 1’‘ +@>‘ <$?>0+!‘ <?‘ +1‘ J@>+@>.‘ +@>E‘ @<D‘ '<%%>0‘ 0‘ +@>‘ ' >%D!‘ 1.‘ J>.>‘ ?+ %%‘ J<0D>. 0=‘ 0‘ +@>‘ J %D>.0>??!‘ 1.‘ J>.>‘ A 0 0=‘ <J<E‘ >K ?+>0C>‘ 0‘ +@>‘ D#0=>10?‘ 1’‘ <%<=<‘ <0D‘ .<0<D< T

1B>‘ BA#+>D‘ +@>‘ '< %#.>‘ 1’‘ +@>‘ >KA>D + 10‘ +1‘ +.><C@>.E‘ 0‘ +@>‘ <D<% D>?!‘ ?1B>‘ +1‘ J<0+‘ 1’‘ C10C>.+‘ <B10=‘ +@>‘ C1BB<0D>.?‘ @>‘ J1.+@E‘ C#.<+>‘ 1’‘ %1?

4 A ‘%)5‘ B ‘) 3A B ‘ 0‘ A ‘ 0 ! H6! J)% 5 G‘ ! $4,‘ 1% 2$, ‘ BA ‘)%1 ‘A ‘ ',. ‘ $3 %! J $ '% ‘ *),(% 5‘ ‘ B ‘ % ‘ %,)! " 4 ! 5‘ ‘ C ‘ 3! J #$,)($%')% ‘ , (‘ ,4!‘,!‘ (! F,,! 5‘ ., 5 ‘ ! % ! ‘ 2$,)(! ‘ 5,% ! ! J % 1 ‘ 4 ,)‘ L‘ N$),'%‘)% ‘ 5‘ ., % ,4!‘,!‘ (! F,,!

‘

5<%<C 1?ʻ C10C%#D>?ʻ @ ?ʻ 0<..<+ ,>ʻ1''+@>ʻ D ?<?+>.ʻ 0ʻ +@>ʻ '1%%1J 0=ʻ B<00>.ʻ Qʻ @>ʻ 0#B$>.ʻ1''+@>ʻ 11.?ʻ J<?ʻ ?B<%%ʻ J@1ʻ 0'% C+>Dʻ+@ ?ʻ=. >,1#?ʻ D>'><+ʻ 10ʻ +@>ʻ @. ?P + <0?ʻLʻ ?1ʻ +@<+ʻ +ʻ J<?ʻ C%><.%Eʻ B .<C#%1#?!ʻ <0Dʻ +@>ʻ ?A>C <%ʻ 0+>.A1? + 10ʻ1''ʻ5.1, D>0C>ʻ B<Eʻ $>ʻ D ?C>.0>Dʻ 0ʻ +!ʻ "#?+%Eʻ1''>0D>Dʻ J +@ʻ +@>ʻ =.><+>.ʻA<.+ʻ1''+@1 >ʻ +@<+ʻ >0=<=>Dʻ 0ʻ +@>ʻ >KA>D + 10ʻLʻ J@1!ʻ 0?+><Dʻ1''C10P '>?? 0=!ʻ A<.+<H 0=ʻ +@>ʻ ?<C.<B>0+!ʻ <0Dʻ B<H 0=ʻ+@> .ʻ +>?+<B>0+?!ʻ <?ʻ $>C1B>?ʻ =11Dʻ @. ?+ <0?!ʻ <0Dʻ B>0ʻ +@<+ʻ <.>ʻ+1ʻ $><.ʻ<.B?ʻ 0ʻ D>'>0C>ʻ 1''+@>ʻ @1%Eʻ C<+@1% Cʻ '< +@!ʻ <CH01J%>D=>Dʻ +@<+ʻ +@>Eʻ D Dʻ 01+ʻ $. 0=ʻ J +@ʻ +@>Bʻ ?# +<$%>ʻ D ?A1? + 10?!ʻ $#+!ʻ J +@ʻ % ++%>ʻ .>=<.Dʻ +1ʻ 1D?ʻ ?>., C>!ʻ J>.>ʻ 0'%#>0C>Dʻ $Eʻ C1,>+1#?0>??ʻ <0Dʻ %1,>ʻ1''#0=1D%Eʻ=< 0 RT

Qʻ 8, ʻ 5ʻ ʻ " C ʻ*% ,>ʻ (ʻ !ʻ(!ʻ F!ʻ $ '%ʻA%ʻ5 ; . 5ʻ% % ' ʻ 3%(ʻ ʻ A ʻ$)0 ; $)% ʻ F3 5,,)ʻ ʻ A ʻ F% >ʻ 2$,%!ʻ 8,ʻ ,) ,1%(Cʻ B,Aʻ A ʻ 3 ,)(,3%ʻ3)ʻ 0ʻ A ʻ($ ʻ)%4 5ʻA,1ʻ)ʻ5 $4ʻ ʻ. ,0Cʻ 1 ʻ 0ʻA ʻ3% ,($% ʻBA,(Aʻ A ʻ (5!ʻ A ʻ($% ʻ5ʻ ʻ %; %(, ʻ0 1ʻA ʻ3 F,1,Cʻ 0ʻA,ʻ ,5)(ʻ ʻ A ʻ A % ʻ 0ʻ%(; ,)ʻ 1%Cʻ4ʻ $33 5ʻ% ʻ ʻ A%.ʻA%5ʻ%13ʻ1 %)ʻ0ʻ 4; %,),)'ʻ A ʻ 2$, ,ʻ ,)0 1%; ,)!ʻ ʻA ,ʻ . %ʻ%(($) ʻ % A $'Aʻ) ʻ ,(Cʻ( ) %5,(; Cʻ,ʻ,ʻ) ʻ%B%Cʻ % Cʻ ʻ ( )(,ʻB,Aʻ)ʻ%) A !ʻ A ʻ)% %,. ʻ 0ʻ(13 Fʻ 1,,%Cʻ 3 %,)ʻ% ʻ) ʻ ,@ Cʻ ʻ4ʻ ,13,0,5ʻ $)5 ʻ A ʻA%)5ʻ 0ʻ 1)@,Aʻ4 @1)!ʻ ʻA%.ʻ); 5 %. $ 5ʻ ʻ1%@ʻ $ʻ%( );) (5ʻ, $ʻ0 1ʻ%ʻ(13%,)ʻ 0ʻA ʻ 1ʻB,Aʻ A ʻ*% ,; ,%)ʻ%$A , ,ʻ 4$ʻA ʻ A ʻ 1 %') ʻ 0ʻA ʻ 1ʻ%);)% ʻ(13 ʻ$ʻ ʻ %1)ʻ A ʻ 3 1% $ ʻ5 %Aʻ 0ʻ*)5 ! ʻ (%)ʻA% 5 Cʻ4ʻ F3 (5ʻ,)5 5ʻ A% ʻ A ʻ ʻ A ,55ʻ A%.ʻ 5B ʻB,Aʻ 1$(Aʻ%13,0,(%,)ʻ)ʻA,ʻA$1,,%,)''ʻ3 , 5ʻ4$ʻ A ʻ(%)ʻ4ʻ, ʻ5 $4ʻA%ʻ0%ʻ 1 ʻ(3, $ʻ1 1 ,% ʻ 0ʻA , ʻ A%)ʻ%)Cʻ) Bʻ3$4,A 5ʻ F, ʻ ,)ʻ A ʻ 3%), Aʻ,4 % , 4 %)5ʻ, ʻ B ʻ 1$(Aʻ ʻ4ʻB, A 5ʻ A%ʻ 1 ʻ ,) %ʻ (A %ʻ B $ 5ʻ $33 C*)5 Kʻ5 0,(,)(Cʻ4C Fʻ 3 ,)''ʻ A ʻ%$A),(ʻ (5ʻ 0ʻBA%ʻ1%Cʻ4ʻ5 1 5ʻ%ʻ0%ʻ %ʻ*A , ,%)ʻ 3%,)ʻ, ʻ( )( ) 5ʻ A ʻ1 ʻ ' , $ʻ3 ,)ʻ! 0ʻA ʻ A, C!

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?>0C>' 1'' % ' +<.!' +@>' D>'>0D>.' 1'' 1"<!' +@>' ,>+>.<0' 1'' <' @#0D.>D' $<++%>?!' J@1?>' B % +<.E' A.1J>??' @<D' .< ?>D' @ B' +@.1#=@' >,>.E' ?#CC>?? ,>' =.<D<+ 10' '.1B' +@>' C1B B10' ' %>' #A' +1' +@>' @ =@>?+' A1?+' ' +@>' <..<EL' <0D' J@1?>' A%>$> <0' $%11D' @<D' $>>0' A>.B ++>D' +1' B 0=%>' J +@' +@<+' 1'' .1E<%+E!' $E' +@>' B<.. <=>' 1'' @ ?' D<#=@+>.' +1' +@>' E1#0=' S 0=' $D<%%<@

+@' +@ ?' =<%%<0+' <..<E!' +@>' 11. ?@' B10<.C@' ?<%P % >D' '1.+@' '.1B' .<0<D<' ?' @>' %>D' +@>' J<E' +@.1#=@' +@>' <,>0#>!' J@ C@' ?+ %%' $><.?' +@>' 0<B>' 1''+@>' =<+>' 1'' %, .<!T' +@>' A1 0+' 1'' @ ?' %<0C>' C<B>' 0' C10+<C+' J +@' +@>' <.C@!' <0D' J<?' $.1H>0' @ ?' ? 0 ?+>.' 1B>0' J<?' '1%%1J>D' $E' <01+@>.' B1.>' <%<.B 0=' ' '1K!' J@ C@' C.1??>D' +@>' A<+@' 1'' +@>' <.BE!' J<?' ?>>0' +1' .#0' +@.1#=@' +@>' .<0H?!' <0D!' 01+J +@?+<0D 0=' +@>' ?@1J>.?' 1'' B ?? %>?' D ?C@<.=>D' <+' @ B!' +1' B<H>' @ ?' >?C<A>' #0@#.+' $D<%%<@ ?' C1#0?>%%1.?' J1#%D' @<,>' A>.P ?#<D>D' @ B' +1' <$<0D10!' 1.' <+' %><?+' A1?+A10>!' <0' >0+>.A. ?>' 1'' ?#C@' %%' <#=#.EL' $#+' +@>' H 0=!' %>??' ?#A>.?+ + 1#?!' 1.' '.1B' +@>' 1$?+ 0<CE' J +@' J@ C@' '>>P $%>' B 0D?!' J@>0' 10C>' .>?1%,>D!' '.>F#>0+%E' A>.? ?+' 0

' Y' ' %'3$ ' 5 ' ., %'
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%A 1% .%C%')' $' '$% 5%!K['
8C %' : $ %' 5 ' : %)%5%'
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+@> .ʻ A.1">C+?!ʻ .>">C+>Dʻ +@> .ʻ <D, C>!ʻ <0Dʻ A.>??>Dʻ '1.P J<.Dʻ 10ʻ @ ?ʻ B<.C@ T

@>ʻ <D,<0C>ʻ 1'ʻ +@>ʻ A<.+Eʻ J<?ʻ 01+ʻ C10D#C+>Dʻ ?1ʻ C<#+ 1#?%Eʻ $#+ʻ +@<+ʻ +ʻ .><C@>Dʻ +@>ʻ><.ʻ 1'ʻ 10ʻ >=1ʻ >.0<0D>Gʻ D>ʻ 1.D1,<!ʻ %C<ED>ʻ D>ʻ %1?ʻ 10G1%>?!ʻ 1.ʻ C<A+< 0ʻ 1'ʻ +@>ʻ .1E<%ʻ A<=>?!ʻ J@1ʻ C1B B<0D>Dʻ 0ʻ +@>ʻ +1J0ʻ 1'ʻ #C>0<!ʻ J@ C@ʻ @>ʻ . =@+%Eʻ"#D=>Dʻ J<?ʻ +1ʻ $>ʻ +@>ʻ A. 0C A<%ʻ 1$">C+ʻ 1'ʻ <++<CH ʻ >ʻ +.<0?B ++>Dʻ +@>ʻ 0+>%% =>0C>ʻ +1ʻ @ ?ʻ #0C%>ʻ +@>ʻ 1#0+ʻD>ʻ <$.<!ʻ <ʻ 01$%>P B<0ʻ 1'ʻ+@>ʻ ?<B>ʻ0<B> , +@ʻ @ B?>%'!ʻ J@1ʻ J<?ʻ A1?+>Dʻ <+ʻ @ ?ʻ 1J0ʻ +1J0ʻ 1' <>0<!ʻ .>F#>?+ 0=ʻ @ ?ʻ ?#AA1.+ʻ >ʻ #?>Dʻ <%%ʻ D % =>0C>ʻ 0ʻ .>A< . 0=ʻ +@>ʻ '1.+ ' C<+ 10?ʻ 1'ʻ+@>ʻ C +E!ʻ J@ C@!ʻ <%+@1#=@ʻ >K+>0? ,>ʻ <0Dʻ 1. = 0<%%Eʻ ?+.10=!ʻ @<Dʻ '<%%>0ʻ ?1B>J@<+ʻ 0+1ʻ D>C<Eʻ Lʻ <0Dʻ @<, 0=ʻ C<#?>Dʻ ?#C@ʻ 1'ʻ +@>ʻA1A#%<+ 10ʻ <?ʻ J<?ʻ .>0D>.>Dʻ @>%AP %>??ʻ $Eʻ <=>ʻ 1.ʻ 0' .B +Eʻ +1ʻ J +@D.<Jʻ 0+1ʻ+@>ʻ 0+>. 1.ʻ D>'>0C>?ʻ 1'ʻ+@>ʻ A%<C>!ʻ @>ʻC11%%Eʻ J< +>Dʻ +@>ʻ <AA.1<C@ʻ 1'ʻ+@>ʻ >0>B E '

@>ʻ 11. ?@ʻ <.B E!ʻ <'+>.ʻC.1?? 0=ʻ+@>ʻ$1.D>.?!ʻ$>=<0ʻ +1ʻ B<.Hʻ +?ʻ C<.>>.ʻ +@.1#=@ʻ +@>ʻ @. ?+ <0ʻ +>.. +1.Eʻ J +@ʻ +@>ʻ #?#<%ʻ +.<C>?ʻ 1'ʻ D>,<?+<+ 10!ʻ <0D!ʻ ?J>>A 0=ʻ <C.1??ʻ +@>ʻ >0, .10?ʻ 1'ʻ #C>0<!ʻ A1#.>Dʻ <ʻ B<.<#D 0=

Nʻ 10D>!ʻ 1B 0<C 10ʻ Dʻ %1?ʻ .<$>?!ʻ+1B ʻ 1ʻ KKK, O <.M D100>ʻ ?+ʻ D '. F#>ʻ >+ʻ D ?M A<=0>!ʻ+1B ʻ ʻAAʻ7 9O79 Oʻ >B<%D>G!ʻ ?+!ʻ Dʻ %1?ʻ >E>?ʻ <+1%ʻ ʻ C'%K O5>D.<G<!ʻ 0M + =#>D<Dʻ Eʻ KC>%!ʻ Dʻ .<0<D<!ʻ '1%ʻ O <.B1%!ʻ >$>%!ʻ Dʻ %1?ʻ 1. ?C1?!ʻ % $ʻ ʻC<Aʻ K +ʻ 5##=<.!ʻ .10C<ʻ Dʻ %1?ʻ >E>?ʻ <+1%C1?!ʻ A<.+ʻ ʻ Cʻ KK @>ʻ D10G>%>?!ʻ1"J@C@ >=1ʻDʻ 1.D1,<ʻ J<?ʻ <%C<ED>!ʻ 1.ʻ C<AP +< 0!ʻ J>.>ʻ<$1DE1"E1#0=ʻC<,<P % >.? 1. = 0<%%Eʻ $.1#=@ʻ #Aʻ <? A<=>?ʻ 0ʻ +@>ʻ .1E<%ʻ @1#?>@1%D!ʻ <0Dʻ 1.=<0G>Dʻ <?ʻ <ʻ ?>A<.<+> C1.A?ʻ 1"+@>ʻ B % + <ʻ >0D1G<!ʻ =0D<D>?ʻ Dʻ <?+ %%<!ʻ A'78:ʻ Oʻ >>ʻ <%?1ʻ 1.<%>?!ʻ 0+ =#>M D<D>?ʻ Dʻ <?+ %%<!ʻ A#?Cʻ +1Bʻ K ,ʻA'4

'1.<E 0+1 +@> . C@ 1' 1.D1,< <? '<.' <? +@> J<%%? 1'' =# %<.L J@>0C> +' .>+#.0>D! =%#++>D J +@ ?A1 %! +1 %<E ? >=> +1 #C>0<' <$1#+ +@> 7 ?+ 1'' A. %

@> 1#0+ D> <$.<! 0 +@> B><0 J@ %>! J@1 @<D %1?+ 01 + B> 0 B#?+>. 0=' @ ? %>, >?! ?>+ '1.J<.D <+ +@> @><D 1'' <' ?B<%% $#+ J>%%M<AA1 0+>D '1.C>! C1OP ? ?+ 0=' 1'' $1+@ @1.?> <0D '11+! +1 +@> .>% >'' 1'' @ ? 0>A@>J > <D,<0C>D J +@ ?#C@ C>%>. +E +@<+ @> @<D J>%% 0 =@ ?#.A. ?>D +@> $>%><=#>. 0=' <.BE ? @> +.<,>.?>D +@> ? >..<! J@ C@ C1,>.>D +@> 11. ?@ '%<0H! @ ? 0#B$>.?MJ>.> A<.+ <%%E C10C><%>D $E +@> 0+>.,>0 0=' <$.#A+ 10? 1'' +@> =.1#0D! J@ %> +@>C%<?@ 1'' <.B? <0D +@> ?@. %% B#? C .>,>.$>.<+ 0=' <B10=' +@> @ %%?! >K<==>.<+>D +@> .' .><% B<=0 +#D> 0 +@> <AA.>@>0? 10 1'' +@> >0>BE +' +@> ?<B> + B> +@> %C<ED> D> %1? 10G>%>? ?#AA1.+>D @ ? #0C%>? <DP ,<0C> $E <' , =1.1#? ?<%%E '.1B +@> C +E ' @> .<M 0<D 0> 0'<0+.E! <0K 1#? 10%E '1.' +@> A.>?>.,<+ 10 1'' +@> .',<%#<$%> $11+E! ?C<.C>%E J< +>D '1.' +@> >0C1#0P +>.! $>'1.> +@>E $>=<0 ' D<?+<.D%E .>+.><+! <0D %>'+ +@> $<++%> +1 +@> C<,<%.E ' @> %<++>.! C1BA1?>D! <? @<? $>>0 ?< D! 1'' +@> ?+.>0=+@ 1'' +@> 11. ?@ C@ P ,<%.E! B>0 <CC#?+1B>D 0 B<0E <' $1.D>.' '1.<E +1 C.1?? %<0C>? J +@ +@> $>?+ H0 =@+? 1'' 0D<%#? <! H>A+ +@> .' =.1#0D J +@ +@> .' J10+>D =<%%<0+.E ' @> C10P '% C+! ?1 J>%% D ?A#+>D! .>B< 0>D D1#$+'#% '1.' ?1B> + B>! #0+ % + J<? D>+>.B 0>D $E +@> D><+@! 1'' +@> ,>+>.<0 C@ >'+< 0 % ' +<.! Q +@> $>?+ %<0C>!R <? < <?+ % <0 J.+>.' @<? ?+E%>D @ B!M Q 1'' <%% 1. ?B<!R

J@1 J<? $.1#=@+ +1 +@> =.1#0D <'+>. .>C> , 0=+J1 J1#0D?! <0D +@#? >?C<A>D $E<0 @101#.<$%>D><+@ +@> B>%<0C@1%E ?A>C+<C%>1 '@ ? C1#0+.E ?@#B % <+ 10 T

@> >0>BE! D ?@><.+>0>D $E +@ ? %1??! ?110 $>=<0 +1 = ,> =.1#0D % +@1#=@ @<.D A.>??>D $E +@> A<0 <.D?! @1J>,>.! +@>E .>+.><+>D 0 ?1B> 1.D>.! #0+ % +@>E .><C@>D +@> $1.D>.? 1'' +@> ; >0 %! J@ C@ J>.> +@.10=>D J +@ +@> 0'<0+.E! ,< 0%E <++>BA+ 0=< A<??<=> <C.1?? +@> ?+.><B! ?J1%%>0 $E >KC>?? ,> .< 0? +1 < @> =@+ B#C@ <$1,> +? 1.D 0<.E %>,>% @> C10'#? 10 01J $>C<B> #0 ,>.?<%! @1.?> <0D '11+ B 0=% 0=+1=>+@>.L ><C@ 10>! @>>D'#% 10%E 1'' % '>! 01 %10=>. +@1#=@+ 1'' @ ? $11+E <0E <++>BA+ 0=+1 ?J B +@> ?+.><B J>.> $1.0> D1J0! ?+>>D <0D .D>.! A.1B ?C#1#?%E 0 +? J<+>.? <0E B1.>! ?C<.C>%E B<H 0=?@1J 1'' .>? ?+<0C>! J>.> C#+ D1J0 10 +@> $<0H? $E +@> A + %>?? A<0 <.D? @> E1#0=S 0= $D<%%<@! J@1 @<D $>>0 C10?A C#1#? D#. 0=+@<+D<E 0 +@> @1++>?+ 1'' +@> ' =@+! B1#0+>D 10 < B %HMJ@ +> C@<.=>. .A@%E C<A<. ?10>D! ?<J ' '+E 1'' @ ? %1E<% =#<.D '<%% <.1#0D @ B 0D 0=@ ? ?+>>D +11 B#C@ "<D>D +1 ?+>B +@> C#..>0+ 1'' +@> . ,>.! @> F# >+%E D ?B1#0+>D <0D ?1#=@+ < ?@>%+>. <B10= +@> .>>DE +@ CH>+? +@<+ '. 0=>D +? B<.= 0! #0+ % +@> ?+1.B 1'' $<++%> ?@1#%D @<,> A<??>D 1,>. 0 +@ ? %#.H 0=M A%<C>! @1J>,>.! @> J<? D ?C1,>.>D $E < C1BB10

N 10D>! 1B0<C D>%1? .<M 64 O >B<%D>G! ?+! D> %1? $>?! +1B ' C KKK, O $<.C<! >E>? <+1% C ' C K O5#%M >E>? D> .<=10! +1B ' '1%' =<.! .10C<! C KK' O <.B1%! 7' O <% 0D>G D>! <.$<'<%! >$>%! D> %1? 1.?C1?! % $ ' C 0<%>? D> >.0<0D1! ' <01 K

?1%D >.' 0<B>D' <.+ 0' #.+<D1!' J@1' J +@1#+' .>C1=P
0 ? 0=' @ ?' A>.?10' 0?+<0+%E'<++<CH>D'@ B ' @>'A. 0C>'
D>'>0D>D' @ B?>%'' J +@' @ ?' ?C B +<.!' #0+ %' #.+<D1!'
$> 0=' "1 0>D' $E' +J1' 1'' @ ?' C1#0+.EB>0!' ?#CC>>D>D'
0' B<H 0=' @ B' A. ?10>.' @>' B>0!' 1,>."1E>D' <+'
+@> .' A. G>!' -'1.' $D<%%<@' @<D' .>,><%>D' @ ?' .<0H' 0'
1.D>.' +1' ?>C#.>' @ ?' A>.?10' '.1B' , 1%>0C>!*' C10D#C+>D'
@ B' +1' +@> .' =>0>.<%!' +@>' 1#0+' D>' <$.<' @>'%<++>.'
.>C> ,>D' +@>' .1E<%' C<A+ ,>' J +@' <' =>0>.1#?' C1#.+>?E%'
+@>' $>?+' ? =0' 1'' 01$%>' $.>>D 0=!' <0D' J@ C@!' .>C1=MT'
0 ?>D' <?' <' '><+#.>' 1'' C@ ,<%.E!' <''1.D?' <' A%><? 0='
C10+.<?+' +1' +@>' '>.1C 1#?' ?A . +' 1'' <0C >0+' J<.'<T '
@>' =11D' C1#0+' <DB 0 ?+>.>D' +1' +@>' #0'1.+#0''%>'
A. 0C>' <%%' +@>' C10?1%<+ 10?' J@ C@' @ ?' ?+<+>' J1#%D'
<DB +L' <0D'?#$?>F#>0+%E'%1D=>D'@ B' 0' @ ?' C<?+%>' 1''
<>0<!' J@>.>' @>' J<?' >0+>.+< 0>D' J +@' +@>' B1?+'
D>% C<+>'<0D'C1#.+%E'@1?A +<% +E T

><.%E'+@>' J@1%>' 1''+@>' 1?%>B'C<,<%.E' J>.>' C#+'
#A' 1.' C<A+#.>D' 0' +@ ?' '<+<%' <C+ 10' <0E' 1'' +@>B'
J>.>'A>.?10?' 1''.<0H!'C1BB<0D 0=',<%#<$%>'.<0?1B?'
@>' %1??' 0'% C+>D' 10' +@>' 0'<0+.E' J<?' <%?1' ?>,>.>!'
0C%#D 0=' +@>' J@1%>' 1'' +@> .' D><.M$1#=@+' A%#0D>.'
0>!' 1.!' 0D>>D' <CC1.D 0=' +1' ?1B>' <CC1#0+?!' +J1'
<0D' +J>0+E'$<00>.?' '>%%' 0+1' +@>' @<0D?' 1''+@>' @. ?M

' <.$<E!' 1BA>0D' ?+1M
.<%!' +1B' ' A' 9O 5#%=<.!'
#$' ?#A.< O #.< D>' %1?' 5<%<P
C1?!' 'C' K O 10D>!' 1B M
0<C' D>' %1?' .<$>?!' +1B' ' C'
KKK, O' <.D100>!' ?+' D M'
'% F#>' >+' D ?A<=0>!'+1B' ' AA'
79 O796

@>' ,<. 1#?' D>+< %?!' >,>0' +1'
+@>' ?+>' 1'+@>' $<+%>!' <.>' +1%D' 0'
+@>' #?#<%' C10'#?>D' <0D' C10+.<P
D C+1.E' B<00>.' $E' +@>'=<..#%1#?'
C@.10 C%>.?' 1'+@>'A>. 1D' %%'<#P
+@1.+>?!' @1J>,>.!' $1+@' @. ?P
+<0' <0D' 11. ?@!' <=.>' <?+1' +?'
=>0>.<%' .>?#%+?

+ <0?' 0' +@ ?' <C+ 10' L' 0' C1B B>B1.<+ 10' 1 '' J@ C@' +@>'
A<0 ?@' ?1,>.> =0?' =.<0+>D' +1' +@>' 1#0+' D>' <$.<!'
<0D' @ ?' 0>A@>J'+@>' %C<ED>'D>'%1?' 10G>%>?!'+@>'A. , P
%>=>' 1 '' $><. 0=' +@>' ?<B>' 0#B$>.' 1 '' $<00>.?' 10' +@> .'
>?C#+C@>10!' +1=>+@>.' J +@' +@>' @><D' 1 '' <' 11. ?@'
H 0=' >0C .C%>D' $E' <' =1%D>0' C1.10>+!' J +@' <' C@< 0' 1 ''
+@>'?<B>' B>+<%' <.1#0D'+@>'0>CH T

.><+' J<?' +@>' C10?+>.0<+ 10' 1CC<? 10>D' $E' +@>'
.>+#.0' 1 ''+@>' 11. ?@' '#= + ,>?'+1' .<0<D<!'<0D'%1#D'
J<?' +@>'%<B>0+'+@.1#=@' +?' A1A#%1#?' ?+.>>+?L' '1.' +@>'
A. D>' 1 '' B<0E' <' 01$%>' @1#?>' J<?' %< D' %1 J' 10' +@<+'
D<E!' <0D' +@> .' H 0=' -<' +@ 0=' #0A.>C>D>0+>D' 0' +@>'
<00<%?' 1 ''+@>' B10<.C@E*' J<?' <' A. ?10>.' 0' +@>' %<0D'
1 '' +@>' @. ?+ <0?' ' @>'@1?+ %>' ?+<.' 1 '' ?%<B!R'>KP
C%< B?'<0' .<$ <0' &U +>.!' Q'01J'?C<++>.>D' +?' B<% =P
0<0+' 0'%#>0C>?' 1,>.' A< 0!' <0D' +@>' D1J0'<%%' 1 '' +@>'
#??#%B<0'>BA .>' J<?'D>C.>>D R

@>' #%+<0<'V1.<E<!'@1J>,>.!' J<?'01+' 1 ''<'+>BA>.'
+1' J<?+>'+ B>' 0' #?>%>??'%<B>0+<+ 10' @>' J<?'<J<.>'
+@<+' <' C<A+ ,>' H 0=!' J@1' @>%D' @ ?' + +%>' $E' ?1' A.>P
C<. 1#?' <' +>0#.>' <?' @>.' ?10' $D<%%<@!' B#?+' ?110'
C><?>' +1' $>' <' H 0=' >,>0' 0' 0<B>' @>' <CC1.D 0=%E'
D>?A<+C@>D' <' 0#B>.1#?' >B$<??E' +1' 1.D1,<!' J +@'
A.1''>.?' 1 '' ?#C@' <' .<0?1B' '1.' +@>'A. 0C>?' % $>.<+ 10'
<?' <' D>?A1+' 10%E' C1#%D' 1 ''>.L' <0D' '>J' D>?A1+?' C1#%D'
@<,>' +@>'<#+@1. +E' +1'>0'1.C> '

S 0=' >.D 0<0D!' J@1' J<?' <+' +1. <' J +@' +@>

N' >0D1G<!' =0 D<DC?' D>' W 10D>!' 10 0<C D>'%1?' .<$'
<?+ %%<!'A' 47 O I#0C#<=>0<?' >0' ?A<'<!'+1B' 'C'KKK, O'
D>' 10G<%1' >.0!'D>' ,>D1!' ' <.D100>!' ?+' D '.F#>' >+'
<+' !F#0C'6!'D<%':' D& ?A<=0>!'AA'79 O796

F#>>0 J@>0 @> .>C> ,>D + D 0=? 1 +@> , C+D.E 1
#C>0<! @<?+>0>D +1 +@> 1#+@ +1 D>+>. B 0> 10 +@>
D>?+ 0<+ 10 1 @ ? .1E<% C<A+ ,> +@ ?1B> ?% 1J 1
B<=0<0 B +E! @> D>C% 0>D <0 0+>. , >J J +@ +@>
%<++>. #0+ % @> ?@1#%D @<,> C10?>0+>D +1 @ ? % $>P
.<+ 10 D>$<+> 1 ?1B> J<. B+@ 1CC#..>D 0 +@>
.1E<% C1#0C % <+ 1.D1,< .>?A>C+ 0= +@> A1% CE +1 $>
A#.?#>DL ?1B> C10+>0D 0=+@<+ +@> 11. ?@ B10<.C@
J<? +11 ,<%#<$%> < A. G> +1 $> ?1 .><D %E .>% 0F# ?@>D!
<0D +@<+ +@> >0>B E! $.1H>0 $E +@> %1??1 +@> . 0<P
+#.<% %><D>.! J1#%D ' 0D +D '' C#%+ +1 .<%%E #0D>. 10>
C1B B10 @><D! 1. +1 C10C>.+ <0E >''>C+ ,> B1,>B>0+
+@>.?! <0D >?A>C <%%E +@> <.F# ? 1 <D G! #.=>D
@ ? .>%><?>! <0D >,>0 +@> ?#AA1.+ 1 @ ? A.>+>0? 10?
<=< 0?+ @ ? C1BA>+ +1.! +@> 1%D S 0= 1 .<0<D<L 0P
? ?+ 0= +@<+ +@> 11. ?@ >BA .> J1#%D $> B1.>
>''>C+#<%%E ?@<H>0 $E 0+>.0<% D , ? 10?! +@<0 $E <0E
A.>??#.> 1 +? >0>B >? '.1B J +@1#+ @> ,<. 1#?
<.=#B>0+? J>.> ?#$B ++>D!+1 +@> F#>>0! J@1 ?+ %%
@>%D @>. C1#.+ 60 +@> 1.+@! <0D J@1 D>C D>D '1.
+@> .>%><?> 1 $D<%%<@! <? < B><?#.> $>?+ .>C10P
C % 0= ?1#0D A1% CE J +@ =>0>.1? +E +1 +@> ,<0P
F# ?@>D T

@> +>. B? 1 +@> +.><+E! <%+@1#=@ ?#'' C >0+%E @#P
B % <+ 0= +1 +@> 1?%>B A. 0C>! J>.> 01+ B<+>. <%%E
D ''>.>0+ '.1B +@1?> A.1A1?>D $E +@> #%+<0< V1.<E<

L $ '% *),(%5 C A K 5 ,(%(C ,) '% 5 %)
*% ! (! FF,,! J % 1 ,4! ,! ,) ., B B, A A, C% (%3 ,.
(! F,,! ,)5 5 %)C 3% 0 A, 5 ;
*A% E! 5) 1 3 1) B% 5 A,1!
A%. 3% %@) 0 A, ' %)50%;

+ J<? <=.>>D +@<+ < +.#C> 1 ' +J 1 E><.? ?@1#%D $>
>K+>0D>D +1 $D<%%<@! <0D +1 ?#C@ A%<C>? 0 .<0<D<
<?M<CH01J%>D=>D @ ? <#+@1. +E 0 C10? D>.<+ 10 1 '
J @ C@! @> ?+ A#%<+>D +1 ?#..>0D>. '1#. @#0D.>D @. ?P
+ <0 C<A+ ,>? J +@1#+ .<0?1B! +1 A<E 7! D1$%<?
1 '=1%D <00#<%%E +1 +@> A<0 ?@ ?1,>.> =0?! <0D +1
A>.B + < '.>> A<??<=> <? J>%% <? '#.0 ?@ ?#AA% >? +1
+@> . +.11A? A<?? 0= +@.1#=@ @ ? +>.. +1. >?! '1. +@>
A#.A1?> 1 ' C<..E 0= 10 +@> J<. <=< 0?+ +@<+ A1.+ 10
1 ' +@> H 0=D1B J @ C@ ?+ %% <D@>.>D +1 @ ? '<+@>.
$D<%%<@ B1.>1,>. $1#0D @ B?>%' +1 <AA><. J@>0
?#B B10>D $E >.D 0<0D! <0D +1 ?#..>0D>. @ ? 1J0
?10! J +@ +@> C@ %D.>0 1 ' @ ? A. 0C A<% 01$ % +E! <?
?#.>+ >? '1. @ ? '#%' %B>0+ 1 ' +@> +.><+E @#? D D
+@> #0@<AAE A. 0C> $<.+>. <J<E @ ? @101#. <0D @ ?
C1#0+.E ? '.>>D1B '1. +@> A1??>?? 10 1 ' B B>D <+>
$#+ B1?+ A.>C<. 1#? ?1,>.> =0+EL <?1,>.> =0+E J@ C@
C1#%D ?C<.C>%E $> >KA>C+>D +1 ?#., ,> +@> A>. 1D
J@>0 @> C1#%D $> #?>'#% +1 +@> B<?+>. J@1?> $.><+@
@<D B<D>@ B T

@> +>.B? 1 ' +@> +.><+E $> 0= +@#? D>' 0 + ,>%E
?>++%>D! <0 0+>., >J J<? <..<0=>D +1 +<H> A%<C> $>P
+J>>0 +@> +J1 B10<.C@? <+ 1.D1,< @> <?+ P
% <0 C1#.+ >.? J1#%D @<,> A>.?#<D>D +@> . B<?+>. +1
1 '>. @ ? @<0D '1. $D<%%<@ +1 ?<%#+>! 0 +1H>0 1 ' @ ?
'>#D<% ?#A.>B<CEL $#+ >.D 0<0D .>A%>D! W >.>
+@> S 0= 1 ' .<0<D<' 0 @ ? 1J0 D1B 0 10?! B =@+
D1 +@ ?! $#+ 01+ J@ %> @> ? < A. ?10>. 0 B 0> R

T 5#%=<.! .10! D> %1? >E>? 1B D> %1? .<$! >0 ?A<0<!
<+1% C #$?#A.<' O 10D>! C KKK,

@> 11. ?@ A. 0C> >0+>.>D 1.D1,< <B D?+ <
  1 ' @ ? 1J0 H0 =@+?! <0D < ?A%>0D D +@.10= 1 '
A<0 ?@ C@ ,<%.E! J@1 @<D B<.C@>D 1#+ 1 +@> C +E
+1 .>C> ,> @ B @>0 $D<%%<@ >0+>.>D +@> .1E<%
A.>?>0C>! @> J1#%D @<,> A.1?+.<+>D @ B?>%' 10 @ ?
H0>>?L $#+ >.D 0<0D! @<?+>0 0= +1 A.>,>0+ @ B!>BP
$.<C>D @ B J +@ >,>.E D>B10?+.<+ 10 1 ' .>?A>C+
0 .<$ C 0+>.A.>+>.! J@1 1 ' C <+>D <? 1.<+1.! +@>0
>KA<+ <+>D! 0 '%1. D @EA>.$1%>! 10 +@> B<=0<0 B +E
<0D A. 0C>%E F#<% + >? 1 ' +@> A<0 ?@ H 0=! <0D +@>
%1E<%+E <0D =11D '< +@ 1 ' @ ? 1J0 B<?+>. #+ >.P
D 0<0D 0+>..#A+>D @ ? >%1F#>0C> J +@ +@> <??#.<0C>
+@<+ Q @ ? A<0>=E. C J<? ?#A>.'%#1#?! <0D +@<+ @>
@<D A>.'>C+ C10' D>0C> +@<+ +@> ?1,>.> =0 1 ' .<0<D<
J1#%D H>>A @ ? '< +@ <? $>C<B> < +.#> H0 =@+ <0D <
H 0= R '+>. C>.>B10 >? ?1 @#B % <+ 0= +1 +@> 11.P
?@ A. 0C>! 01+J +@?+<0D 0= +@> ,> % 1 ' D>C1.#B ?+#P
D 1#?%E +@.1J0 1,>. +@>B! @> ?>+ 1#+ J +@ @ ? <+P
+>0D<0+? '1. @ ? C<A +<%! >?C1.+>D $E < $1DE 1 ' 0D<P
%#? <0 @1.?> +1 +@> '.10+ >.! <0D %1<D>D J +@ C1?+%E
A.>?>0+? $E +@> A<0 ?@ H 0=! <0D +@> =>0>.<% C10P
+>B A+ 1 '@ ? C1#.+ T

1+J +@?+<0D 0= +@> BA1.+<0C> 1 ' +@> .>?#%+? 0
+@> J<. 1 ' .<0<D<! < D>+< % 1 ' +@> ?#CC>?? ,> ?+>A?
$E J@ C@ +@>E J>.> <C@ >,>D J1#%D $> B1?+ +>D 1#?
<0D +. '% 0= 1 ? >=> 1. ? 0=%> B % +<.E <C@ >,>P
B>0+ 1 ' =.><+ B1B>0+ 1CC#..>D #0+ % 0><.%E '1#.
E><.? '.1B +@ ? A>. 1D! 0 649L <%+@1#=@! 0 +@>

L $ '% *),(% 5 C (! (,!J *)5 1,)%(! 5
%4 (! FFF.,!

0+>.,>0 0=+B>!<%<.=><B1#0+1'.+.>??>?<0D A>++E+1J0?!+1=>+@>.J+@2,>.E>K+>0?,>+.<C+1'+>..+1.E!J<?.>C1,>.>D'.1B+@>>0>BE+@1#+A#.?#0=+@>C@.101%1=C<%1.D>.1'>,>0+?!+?A.1P $<$%>+@<++@>>0D1'@?+1.EJ%%$>$>?+<++<0>D $EA.>?>0+0=<C10C?>,>J1'+@>=>0>.<%A1%CE A#.?#>D$E+@>?1,>.>=0?0+@>C10D#C+1'+@>J<.

@>11.?@J<.?!#0D>.A.>C>D0=B10<.C@?!@<D C10??+>D1'%++%>>%?>+@<0'1.0.1<D?0+1'+@>>0>BE?+>..+1.E!T J@C@!A1#.0=%H><+1.P .>0+1,>.+@>%<0D!?J>A+<J<E'J@<+>,>.J<?#A10 +@>?#.'<C>!$#+%>'++0+??>0+<%.>?1#UC>? J@1%%E#0BA<.>D'@>$1#0+E1'0<+#.>?110.>P A<.>D+@>.<,<=>?1'B<0!<0D+@>>0?#0=@<.,>?+ ?>>B>D+1?@11+#A B1.><$#0D<0+%E'.1B+@>?1% >0.C@>D$E+@>$%11D1'+@>@#?$<0DB<0'B1.>, =1.1#?E?+>B1'?A1%<+10J<?01J0+.1D#C>D 0?+><D1'10>C<BA<=0!+@><.BE+11H+@>'>%D0?A.0=<0D<#+#B0!0+>.B++0=+?>''1.+?10%E'D#.P 0=+@>0+1%>.<$%>@><+?1'?#BB>.!?1+@<+@> =.>>0C.1A@<D01+B>+1.A>0>.>+J<?+.1DD>0 D1J0#0D>.+@>.10@>>%1'J<.

@><AA<.<+#?'1.'D>,<?+<+10J<?<%?1'10<B#C@ =.><+>.'?C<%>+@<0@<D>,>.'$>'1.>$>>0J+0>??>D .1B+@>?>C10D'E><.'1'+@>J<.!!'1.<=>.?J>.>.>?>.,>D'1.'+@?>.,C>!J@C@'+@>E>''>C+>D $E'D>B1%?@0='<.BM@1#?>?!=.<0<.>?!<0D'B%%?

N@>+>.B'?>>B?'A.>?>0<B<.<#D0=A<.+E!+@> +1'$>'#?>D'0D''>.>0+%E'$E'+@>'1.<E'+?>%'!1.'+%>'$11+E'+<'C$0 <0>>0<A<0?@J.+>.?'+1'.>M0+

J@ C@' %<++>.' J>.>' >KC>>D 0=%E' 0#B>.1#?' 0' <' %<0D'
J<+>.>D' $E' B<0E' ?B<%5?+.><B?'L' $E'>.<D C<+ 0=' +@>'
, 0>?!' <0D' %<E 0=' J<?+>' +@>' 1% ,>' =<.D>0?' <0D' A%<0P
+<+ 10?' 1''1.<0=>?!' <%B10D?!' B#%$>.. >?!' <0D' <%%' +@>'
. C@' ,<. >+ >?' J@ C@' =.>J' %#K#. <0+' 0' +@ ?' @ =@%E'
'<,1#.>D' .>= 10 ' @ ?' B>.C %>??' D>,<?+<+ 10' >K+>0DP
>D' '1.' B1.>' +@<0' +J1' %><=#>?' 10' > +@>.' ? D>' 1''+@>'
% 0>' 1'' B<.C@' +' +@>' ?<B>' + B>!' +@>' >D +>..<P
0><0' '%>>+' C#+' 1''<%%' ?#AA% >?' '.1B' +@>' <.$<.E' C1<?+!'
?1' +@<+' +@>' J@1%>' H 0=D1B' B =@+' $>' ?< D' +1' $>' 0' <'
?+<+>' 1'' A>.A>+#<%' $%1CH<D>' #C@' <0D' ?1' =>0>.<%'
J<?' +@>' ?C<.C +E' 1CC<? 10>D' $E' +@ ?' ?E?+>B!' +@<+' +@>&'
11.?' J>.>' =%<D' +1' >KC@<0=>' +@> .' @. ?+ <0' C<A+ ,>?'
'1.' A.1, ? 10?!' #0+ %' ?#C@' .<0?1B' J<?' 0+>.D C+>D'
$E' +@>' ?1,>.> =0?!' <?' +>0D 0=' +1' D>'><+' +@> .' 1J0'
B><?#.>? T

+ %%' +@>.>' J<?' B<0E' <'=.>>0' <0D' ?@>%+>.>D',<%%>E'
0' .<0<D<' J@ C@' E >%D>D' +?' .>+#.0?' #0B1%>?+>D' +1'
+@>' 11. ?@' @#?$<0DB<0!' J@ %>' @ ?' =.<0<. >?' J>.>'
1CC<? 10<%%E' >0. C@>D' J +@' +@>' A.1D#C>' 1''<' $1.D>.'
'1.<E' @>' 11.?!' +11!&' <%+@1#=@' 0<+#.<%%E' <' %#KP
#. 1#?' A>1A%>!' J>.>' A<+ >0+' 1''?#''>. 0=!' <0D' C<A<$%>'
1''>0D#. 0=' =.><+' A. ,<+ 10' +@>.' B><?#.>?!' +@>.>P
'1.>!' 1''<' ?+ %%' B1.>' '1.B D<$%>' C@<.<C+>.!' $>C<B>'
0>C>??<.E!' 0' C10"#0C+ 10' J +@' +@ ?' . =1.1#?' ?E?+>B'
1''$%1CH<D>

@>' 11. ?@' +1J0?' J>.>' '1.' +@>' B1?+' A<.+' ?+.10=P
%E' D>'>0D>D!' A.>?>0+ 0=' J +@ 0' +@>' % B +?' 1'' .<0<D<!

Q' $ '% ' *),(%' (!FF,,!' J' 1!5' %' %' (%5'5' 8, '
1!.,!' $!.,!

<?‘ @<?‘ $>>0‘ ?< D!‘ B1.>‘ +@<0‘ +>0‘ + B>?‘ +@>‘ <B1#0+‘1’‘ '1.+ ' >D‘ A%<C>?‘ +@<+‘ 01J‘C1,U‘ +@>‘ J@1%>‘ >K+>0+‘ 1’‘ +@>‘A>0 0?#%<‘ @>E‘ ?+11D‘ <%10=‘ +@>‘ C.>?+‘1’‘ ?1B>‘ A.>C A C>!‘ 1.‘ $1%D‘? >..<!‘ J@1?>‘ 0<+#.<%‘ ?+.>0=+@‘ J<?‘ ?+ %%‘ '#.+@>.‘ <#=B>0+>D‘ $E‘+@>‘ ?1% D‘ B<?10.E‘ J +@‘ J@ C@‘ +@>E‘ J>.>‘ ?#..1#0D>D!‘ <0D‘ J@ C@!‘ @1J>,>.‘ 0?#'' C >0+‘+1‘ @1%D‘1#+‘ <=< 0?+‘ B1D>.0‘ <.+ %%>.E!‘ $<D>‘ D>' <0C>‘ +1‘ <%%‘ +@>‘ >0= 0>.E‘ 1’‘ $<++>. 0=‘ J<.'<.>‘ H01J0‘ A.>,1#?‘ +1‘ +@>‘ ' '+>>0+@‘ C>0+#.E‘ +‘ J<?‘ +@ ?‘ ?+.>0=+@‘1’‘ '1.+ ' C<+ 10!‘ C1B$ 0>D‘ J +@‘ +@<+‘1’‘ +@> .‘ %1C<%‘ A1?+10!‘ J@ C@‘ '.>F#>0+%E‘>0<$%>D‘ <‘?%>0P D>.‘=<.. ?10‘ 0‘ +@>?>‘ A%<C>?‘ +1‘ %<#=@‘ +1‘ ?C1.0‘ <%%‘ +@>‘ >''1.+?‘1’‘+@>‘A.1#D>?+‘ <?+ % <0‘ <.B >?

@>‘ A<0 ?@‘ ?1,>.> =0?‘ J>.>‘C10, 0C>D‘ +@<+‘ +@>E‘ B#?+‘ %11H‘ +1‘ +@> .‘ <.+ %%>.E‘ <?‘ +@>‘ 10%E‘ >''>C+#<% B><0?‘ '1.‘ +@>‘ .>D#C+ 10‘ 1’‘ +@>?>‘ ?+.10=@1%D?T‘ 0‘ +@ ?‘ +@>E!‘ <?‘ J>%%‘ <?‘ +@>‘ 11.?!‘ J>.>‘ >K+.>B>%E‘ D>' P C>0+!‘ <%+@1#=@‘ A< 0‘ <AA><.?+1‘ @<,>‘ '#.0 ?@>D‘ ><.P % >.‘ >K<BA%>?‘ 1’‘ +?‘ #?>‘ +@<0‘ <0E‘ 1+@>.‘ C1#0+.E‘ 0‘ #.1A>‘ ?<$>%%<!‘ J@1‘ ?>>B?‘ +1‘ @<,>‘ @<D‘ +@>‘ A<.P + C#%<.‘ C10+.1%‘ 1’‘ +@ ?‘ D>A<.+B>0+!‘ C<#?>D‘ +@>‘ B1?+‘ ?H %'#%‘>0= 0>>.?‘ <0D‘ <.+ ?<0?‘+1‘ $>‘ 0, +>D‘ 0+1‘ +@>‘ H0=D1B‘ '.1B‘ .<0C>!‘ >.B<0E!‘<0D‘ +<%E‘ 1.=>?‘ J>.>‘C10?+.#C+>D‘ 0‘ +@>‘C<BA!‘<0D‘<%%‘+@>‘ .>F# ?+>‘ B<+>. <%?‘ A.>A<.>D‘ '1.‘ +@>‘ B<0#'<C+#.>‘ 1’‘ C<0010!‘ $<%%?!‘<0D‘A1JD>.‘ ‘ %<.=>‘F#<0+ + >?‘1’‘+@>‘%<++>.‘J>.>‘ <%?1‘ BA1.+>D‘ '.1B‘ C %E!‘ %<0D>.?!‘ <0D‘ 51.+#=<%‘ 1BB ??<. >?‘ J>.>‘ >?+<$% ?@>D‘ 1,>.‘ +@>‘ ,<. 1#?‘ D>P A<.+B>0+?!‘ J +@‘ 0?+.#C+ 10?‘ +1‘ A.1, D>‘ J@<+>,>.‘ B =@+‘ $>‘ 0>C>??<.E‘'1.‘+@>‘1A>.<+ ,>?!‘<0D‘+@>‘J@1%>

J<?' >O+.#?+>D' +1' +@>' ?#A>., ? 10' 1'' 10' .<OC ?C1'
<B .>G!' <O' @ D<%=1' <D. D!' <' A>.?10' 1'' B#C@'
>KA>. >OC>' <OD' >K+>O? ,>' B % +<.E' ?C >OC>!' '1.' +@<+'
D<E' E' +@>?>' >''1.+?!' #O.>B ++ O=%E' A#.?#>D' D#.P
O=' +@>' J@1%>' 1''+@>' J<.!' ?<$>%%<' <??>B$%>D' <' +.< O'
X1'' <.+ %%>.E!' ?#C@' <?' J<?' A.1$<$%E' O1+' A1??>??>D' <+'
+@<+' + B>' $E' <OE' 1+@>.' #.1A><O' A1+>O+<+> T

+ %%' +@>' C%#B?E' C1O?+.#C+ 10' 1'' +@>' 1.DO<OC>' $>P
+.<E>D' +@>' O'<OCE' 1'' +@>' <.+' 1.>' +@<O' +J>O+E'
A >C>?' 1'' <.+ %%>.E' #?>D' <+' +@>' ? >=>' 1'' <G<' D#. O='
+@ ?' J<.' <.>' ?+ %%' +1' $>' ?>>O' O' +@<+' C +E!' J@>.>' +@>E'
%1O=' ?>.,>D' <?' C1%#BO?' O' +@>' A#$% C' B<.H>+MA%<C>'
@>' %<.=>?+' 1'' +@>' %1B$<.D?!' <?' +@>' @><,E' 1.DO<OC>'
J<?' C<%%>D!' <.>' <$1#+' +J>%,>' '>>+' O' %>O=+@!' C1O? ?+P
O=' 1'' .1O' $<.?' 1'' +J1' OC@>?' O' $.><D+@!' @>%D' +1TM
=>+@>.' $E' $1%+?' <OD' . O=?' 1'' +@>' ?<B>' B >+<%' +@>?>'
J>.>' ' .B%E' <++<C@>D' +1' +@> .' C<.. <=>?!' OC<A<$%>'
> +@>.' 1'' @1. G1O+<%' 1.',>.+ C<%' B1,>B>O+' +' J<?'
+@ ?' C%#B? O>??' 1'' C1O?+.#C+ 10' J@ C@' %>D' <C@ <M'
,>%% !' ?1B>' +@ .+E' E><.?' <'+>.!' +1' D1#$+' +@>' >KA>P
D >OCE' 1'' $. O= O=' C<OO1O' O+1' ' >%D' >O=<=>B>O+?L'
<OD' @>' A<.+ C#%<.%E' .>C1B B>OD?!' O' @ ?' +.><+ ?>' 1O'
+@>' .+' 1'' <.!' +@<+' +@>' >O>BE ?' ' .>' ?@1#%D' $>'
>,<D>D' $E' O+>.,<%?' O' +@>' .<OH?' $> O=' %>'+' 1A>O'
1AA1? +>' +1' @ ?' C<OO1O '

@>' $<%%?' +@.1JO' '.1B' +@>?>'>O= O>?' J>.>'?1B>+ B>?'
1'' .1O!' $#+' B1.>' #?#<%%E' 1''B<.$%>' >,>.<%' @#OD.>D

L' $ '% ' *)' 5 ' ' C ' : % $1 ' (!' ,,!' ,4!' ,,,!' (%3!'
*% ,(!' (!' FFF,,!' F ,! J N$, %' ,
)% '5 ' %')' 1!',.!' ,4!' ' %(A,%. ,' ' 5 %'
==!(!' ,F! J 4 ,) , ' $1' :$, %' ,4!' ,,,!

1''+@>‘ %<++>.‘ @<,>‘ $>>0‘ A CH>D‘ #A‘ 0‘ +@>‘ ' >%D?‘ <.1#0D‘ <G<!‘ B<0E‘ 1''‘ J@ C@‘ <.>‘ '1#.+>>0‘ 0C@>?‘ 0‘ D <B>+>.!‘ <0D‘ J> =@‘ <‘ @#0D.>D‘ <0D‘ ?>,>0+EM' ,>‘ A1#0D?‘ >+‘ +@ ?‘$#%H!‘>01.B1#?‘<?‘ +‘<AA><.?!‘?@1J?‘<‘C10?D>.<$%>‘ <D,<0C>‘ 0‘ +@>‘ <.+‘ ? 0C>‘ +@>‘ $>= 00 0=‘ 1''‘ +@>‘ C>0P +#.E!‘ J@>0‘ +@>T‘?+10>‘ $<%%?‘ D ?C@<.=>D!‘ <CC1.D 0=‘ +1‘ V#. +<!‘ <+‘ +@>‘ ? >=>‘ 1''‘ <%<=#>.!‘ J> =@>D‘ 01+‘ %>??‘ +@<0‘ ' ,>‘ @#0D.>D‘ @0D‘ ' '+E‘ A1#0D?‘ +‘ J<?‘ ,>.E‘ %10=‘$>'1.>‘+@>‘>K<C+‘A.1A1.+ 10?‘.>F# ? +>‘'1.‘1$+< 0P 0=‘+@>‘=.><+>?+‘>''>C+ ,>‘'1.C>‘C1#%D‘$>‘ <?C>.+< 0>D T‘ @>‘ <JHJ<.DO>??‘ J +@‘ J@ C@‘ +@> .‘ <.+ %%>.E‘ J<?‘ ?>.,>D‘ C1..>?A10D>D‘ J +@‘ +@>‘ .#D>0>??‘ 1''‘ +?‘ B<0#P '<C+#.>‘ +‘ ?‘ 01+ C>D‘<?‘<‘.>B<.H<$%>‘C .C#B?+<0C>‘ $E‘+@>‘C@.10 C%>.!‘+@<+‘+J1‘$<++>. >?!‘ <+‘+@>‘ ? >=>‘ 1''‘ %$<@<.!‘D ?C@<.=>D‘ 10>‘ @#0D.>D‘ <0D‘ '1.+E‘ $<%%?‘ 0‘ +@>‘ C1#.?>‘1''‘<‘D<E ''‘ >? D>?‘+@ ?‘ B1.>‘#?#<%H 0D‘ 1''‘<B B#0 + 10!‘ +@>‘ A<0 <.D?‘ +@.>J‘'.1B‘ +@> .‘ >0P = 0>?‘ %<.=>‘ =%1$#%<.‘ B<??>?!‘ C1BA1?>D‘ 1''‘ C>.+< 0‘ 0'%<B B<$%>‘ 0=.>D >0+?‘ B K>D‘ J +@‘ =#0A1JD>.!‘ Q‘ J@ C@‘?C<++>. 0=‘%10=‘+.< 0?‘1''‘%=@+!R‘?<E?‘<0‘>E>P J +0>??!‘ Q‘ 0‘ +@> .‘A<??<=>‘+@.1#=@‘+@>‘< .!‘ ' %%>D‘+@>‘ $>@1%D>.?‘ J +@‘ D ?B<E!‘ <0D!‘ D>?C>0D 0=‘10‘+@>‘.11'?

L‘ 1!‘5‘%‘ %‘ (%5‘5‘ 8, !‘ 1!‘.,!‘8% !‘ !

((5,)''‘ ‘:,44)‘A‘(%);))‘$ 5‘4C‘ %A 1 ‘ ,)‘ A‘ , '‘ 0‘ *) %) ,) 3 ‘ %4 $‘ A, C‘C % ‘ 4 0 ‘ A, ‘ ,1 ‘ A B‘) ‘4% ‘ B ,,(A‘B ,'A; 5‘ %4 . ‘ ,F‘ A$)5,‖ 5‘ 3 $)5 !‘ A‘1 % $ ‘ 0‘A‘4 ‘ B%‘ B . ‘3% 1 !‘ (,) ‘%)5‘ % ‘ (!‘F.,,,!

]‘ 1‘5‘%‘ %‘ (%5‘5‘ 8, !‘ 1!‘.,!‘ $!‘

>‘=>+‘<‘B1.>‘A.>C?>‘01+ 10‘ 1"+@>‘<JHJ<.D0>??‘J +@‘J@C@ +@>‘ <.+ %%>.E‘J<?‘?>.,>D‘0‘+@>‘ 0'<0CE‘1"+@>‘?C>0C>!‘'.1B‘< '<C+‘.>C1.D>D‘0‘+@>‘C@.10C%>‘1" /1@0‘ !‘+@<+‘<+‘+@>‘?=>‘1" >+>0%!‘ 6-^9!‘ ' ,>‘ %1B$<.D? J>.>‘<$%>‘+1‘D?C@<.=>10%E‘'1.+E ?@1+‘0‘+@>‘C1#?>‘1"<D<E

1 ' +@> >D ' C>?! '.>F#>0+%E 1CC<? 10>D >K+>0? ,> C10P '%<=.<+ 10 R T

@> +.<0?A1.+<+ 10 1 ' +@> . $#%HE >0= 0>? J<? 01+ +@> %><?+ 1 ' +@> D ' ' C#%+ >? J@ C@ +% > A<0 <.D? @<D +1 >0C1#0+>. 0 +@ ? J<. @> & 11. ?@ '1.+.>??>? J>.> '.>F#>0+%E 0+.>0C@>D 0 +@> D>A+@? 1 ' ?1B> B1#0+< 0 %<$E. 0+@! J@1?>.#==>D A<??>? J>.>?C<.C>%E <CC>?? $%> +1 C<,<%.E 0 B B>0?> $1DE 1 'A 10>>.?! +@>.>'1.>! J<? C10?+<0+%E >B A%1E>D 0 C10?+.#C+ 0= .1<D? '1. +@> <.+ %%>.E <C.1?? +@>?> ? >..<?! $E %>,>%P % 0= +@> B1#0+< 0?! ' %% 0= #A +@> 0+>. ,>0 0= ,<%%>E? J +@ .1CH?! 1. J +@ C1.H +.>>? <0D 1+@>. + B$>. +@<+ =.>J A.1% ' C 0 +@> J %D>.0>??! <0D +@.1J 0= $. D=>? <C.1?? +@> +1..>0+? <0D A.>C A +1#? 5#%M =<. @<D +@> C#. 1? +E +1 >K<B 0> 10> 1 ' +@> C<#?>P J<E? +@#? C10?+.#C+>D! A.>A<.<+1.E +1 +@> ? >=> 1 ' <B$ %! J@ C@! <%+@1#=@ ! A 10>>.? J>.> @1#.%E >B A%1E>D 0 +@> J1.H! J<? <++>0D>D J +@ ?#C@ D ' ' P C#%+E! +@<+ + <D,<0C>D 10%E +@.>> %><=#>? 0 +J>%,> D<E? + .>F# .>D! ?<E? +@> @ ?+1. <0! +@> >0+ .> D>P B1% + 10 1 ' 10> 1 ' +@> B1?+ .#==>D A<.+? 1 ' +@> ? >..<! J@ C@ 01 10> C1#%D @<,> $>% >,>D A.<C+ C<$%> '1. @#B<0 0D#?+.E '

@> 11. ?@ =<.. ?10?! A>.C@>D 10 +@> . B1#0+< 0

T <. 0?>1 C#%1! 1?<? >B1. D> ?A<0<! '1% 96 O 5#%=<.! .10% D> %1? >E>? <+ C K% ,

1B> J.+>.?! <? +@> $$ =01+! - ?+! D> >.D >+ ?<P $>%>! +1B A 79 !* @<,> .>'>.P .>D +@> 0,>0+ 10 1 ' $1B$? +1 +@> ? >=> 1 ' 10D< ' 0D 01 <#+@1. +E'1.'+@ ?! 5#%=<. ? J1.D? <.>! +@>E B<D> B<0E .10 $<%?! %<.=> <0D ?B<%! ?1B> 1 ' J@ C@ +@>E C<? 0 < B1#%D! @<, 0= .>D#C>D +@> .10 +1 < ?+<+> 1 ' '#? 10! ?1 +@<+ + J1#%D .#0 % H> <0E 1+@>. B>+<% R

] $ '% *),(% (! ,! J *$ % 5 % %(, ! (! FFF,,!

'<?+0>??>?!' J@ C@!' % H>'+@>' >E.E' 1'' ?1B>' $ .D' 1''A.>E!'
?>>B>D' <%B1?+' 0<CC>?? $%>' +1' B<0!' $>@>%D' J +@' <?+1P
0 ?@B>0+' +@>' @><,E'+.< 0?' 1''<.+ %%>.E' >B>.= 0=' '.1B'
+@>' A<??>?!' J@>.>' +@>' '11+' 1''+@>' @#0+>.' @<D' ?C<.C>%E'
$>>0' HO1JO' +1' ,>0+#.>' @>' J<%%?' J@ C@' >OC1BP
A<??>D'+@> .' C + >?!' <%+@1#=@'%1'+E!' J>.>' O1+' 1'' ?#'' P
C >0+'+@ CHO>??' +1' J +@?+<0D'%10='+@>'<??<#%+?' 1''+@>?>'
'1.B D<$%>' >0= 0>?' @>' 11.?' J>.>' D>' C >0+' 0'
@><,E'1.DO<OC>' @>' J><A10?' 10' J@ C@'+@>E'C@ >'%E'
.>% >D' '1.'<001E 0='+@>' >0>BE'<+'<' D ?+<OC>' J>.>'+@>'
<.F#>$#??' <OD' C.1??M$1J!' J +@'+@>' %<?+'1'' J@ C@'+@>E'
J>.>' #0>.. 0=' B<.H?B>0!' $> 0=' +.< 0>D' +1' +' '.1B'
0'<OCE' @>E' <D1A+>D' <' C#?+1B!' .<.>%E' B>+' J +@'
0' C , % G>D' O<+ 10?' 1'' <OE' <=>!' 1'' A1 ?10 0=' +@> .'
<..1J?L' D ?+ %% 0=' '1.' +@ ?' A#.A1?>' +@>' "# C>' 1'' <C1P
0 +>!' 1.' J1%'?$<0>!' J@ C@' =.>J' . '>' 0' +@>'
'1.' 01JE' 1#0+< 0?!'0><.' .<0<D<' 'A >C>'
1'' % O>0' 1.' C1++10' C%1+@' ?+>>A>D' 0' +@ ?' D>C1C+ 10' J<?'
J.<AA>D' .1#0D' +@>' A1 0+' 1'' +@>' J><A10!' <OD' +@>'
J1#0D' O'% C+>D' $E' +!' @1J>,>.'+. , <%' 0' <AA><.<OC>!'
J<?' ?#.>' +1' $>' B1.+<%' 0D>>D' <' A<0 ?@' J. +>.!'
O1+' C10+>0+' J +@'+@ ?!' BA#+>?' ?#C@' B<% =0 +E' +1' +@>'
, .#?!' +@<+' <' D.1A' 1'' +!' <?' @>' <??>.+?!' B 0=% 0=' J +@'
+@>' $%11D' 11G 0=' '.1B' <' J1#0D' J1#%D' <?C>OD' +@>'
?+.><B' 0+1' +@>' ,> 0!' <OD' D ''#?>T' +?' '<+<%' O'%#>OC>'
1,>.'+@>' J@1%>' ?E?+>B'ŹT

N' >0D1G<!' #>..<D' .<0<P A' 4 O CC1.D0=' +1' >0D1P
D<Ľ' >D' 99 !' AA' 9 !' 96 O' G<!' <' D>C1C+ 10' 1'' +@>' F#0C>'
V#. +<!' 0<%>?' D>' .<=10!' '#.0?@>D' +@>' B1?+' >''>C+#<%'
+1B' ,' %$'KK' C' %K' OT2 >B' <0+D1+>' HO1JO' <=<0?+' +@?'
D>%<' ><%' C<D!'D>' ?+!'+1B, A1?10

>.D 0<0D!' J@1' <AA><.>D' <+' +@>' @><D' 1 '' @ ?' <. B >?'
+@.1#=@1#+' +@>' J@1%>' 1 '' +@ ?' J<.!' A#.?#>D' <' ?<=<P
C 1#?' A1% CE' 0' .>'>.>0C>' +1' +@>' $>%><=#>.>D' C + >?' '
>' J<?' >,>.' .><DE' +1' B >>+' +@>' ' .?+' 1,>.+#.>?' +1'
?#..>0D>.!' 0' +@>' B 1?+' % $>.<%' ?A . +L' =.<0+ 0=' A.1P
+>C+ 10' 1 '' A>.?10!' <0D' ?#C@' A.1A>.+E' <?' +@>' $>? >=>D'
C1#%D' +.<0?A1.+' J +@' +@>B !' <0D' <?? =0 0=' +@>B' <'
.>? D>0C>!' '' +@>E' A.>'>..>D' +!' 0' @ ?' 1 J 0' D1B 0 10?'
<0E!' 0' C10?>F#>0C>' 1 '' +@ ?!' B =.<+>D' +1' >, %%>M'
<0D' 1+@>.' C + >?' 1 '' 0D<%#? <!' J@>.>' +@>E' J>.>' ?>+P
+%>D' 10' >?+<+>?' J@ C@' @<D' $>>0' C10' ?C<+>D' $E' +@>'
0F# ? +1.?L' J@1' %11H>D' '1.J<.D!' 01' D1#$+!' J +@'
?<+ ?'<C+ 10' +1' +@>' + B>' J@>0' +@>E' ?@1#%D' $>' A>.P
B ++>D' +1' +@.#?+' +@> .' ? CH%>' 0+1' +@>' 0>J' C.1A' 1 ''
@>.>?E!' J@1?>' ?>>D?' J>.>' +@#?' ?1J0' <B D' +@>' <?@>?'
1 '' +@>' 1%D' 10>' @1?>' J@1' A.>'>..>D' +1' .>B< 0' 0'
+@>' C10F#>.>D' 11. ?@' +>.. +1.E' <?' <?+ % <0' ?#$">C+?!'
J>.>' A>. B ++>D' +@>' '.>>' >0"1E B>0+' 1 '' A>.?10<%' . =@+?'
<0D' A.1A>.+E!' <?' J>%%' <?' 1 '' +@> .' .>% = 10' L' <0D' ?#C@'
J<?' +@>' ' D>% +E' J +@' J@ C@' >.D 0<0D' .>D>>B>D' @ ?'
>0=<=>B>0+?' D#. 0=' +@>' J<.!' $E' +@>' A#0 ?@B>0+' 1 ''
+@>' %><?+' 0' <C+ 10' 1 '' +@>B' $E' @ ?' 1J0' A>1A%>!' +@<+'
B<0E!' A<.+ C#%<.%E' 1 '' +@>' 11. ?@' A><?<0+.E!' A.>P
'>..>D' <$ D 0=' 0' +@> .' ><.%E' @1B>?' +1' .>B1, 0=' +1'
.<0<D<!' 1.' 1+@>.' A%<C>?' 1 '' +@>' 1?%>B' D1B 0 10'
+' J<?!' A>.@<A?!' <' C1#0+>.A<.+' 1 '' +@>' ?<B>' A1% CE'
J@ C@' %>D' >.D 0<0D' +1' C@<?+ ?>' <0E' <++>BA+' <+'
.>,1%+' 10' +@>' A<.+' 1 '' @ ?' 0>J' 11. ?@' ?#$">C+?!' +@>'
#D>"<.>?!' <?' +@>E' J>.>' C<%%>D!' J +@' <0' #0?A<. 0='
. =1#.!' J@ C@' B>. +?' +@>' .>A.1<C@' 1 '' C.#>%+E' #C@

J<?‘ +@>‘ B % +<.E‘ >K>C#+ 10‘ 0'% C+>D‘ 10‘ +@>‘ .>$>%% 1#?‘ +1 J 0‘ 1'‘ >0>B<F#>G!‘ J@>.>‘ @>‘ C1B B<0D>D‘ 10>‘ @#0D.>D‘ <0D‘ +>0‘ 1'‘ +@>‘ A. 0C A<% 0@<$ +<0+?‘ +1‘ $>‘ @#0=‘ <$1,>‘ +@>‘ J<%%?!‘ <0D!‘ <'+>.‘ C10? =0 0=‘ +@>‘ .>?+‘ 1'‘+@>‘ A1A#%<+ 10!‘ B>0!‘ J 1B>0!‘ <0D‘ C@ %D.>0!‘ +1‘ ?%<P ,>.E!‘ C<#?>D‘ +@>‘ A%<C>‘ +1‘ $>‘ .<G>D‘ +1‘ +@>‘ =.1#0D‘ @>‘ @#B<0>‘ A1% CE‘ #?#<%%E‘ A#.?#>D‘ $E‘ >.D 0<0D‘ ?>>B?‘ +1‘ @<,>‘ @<D‘ <‘ B1.>‘ '<,1#.<$%>‘ >''>C+‘ 10‘ @ ?‘ >0>B >?!‘ J@1‘ J>.>‘ >K<?A>.<+>D‘ .<+@>.‘ +@<0‘ 0+ B P D<+>D‘ $E‘ +@ ?‘ '>.1C 1#?‘ <C+‘ 1'‘ ,>0=><0C> T

@>‘ B<=0 +#D>‘ 1'‘ +@>‘ 1+@>.‘ A.>A<.<+ 10?‘ C1..>P ?A10D>D‘ J +@‘ +@1?>‘ '1.‘ +@>‘ 1.D0<0C>‘ D>A<.+B>0+‘ @>‘ <B1#0+‘ 1'‘ '1.C>?‘ <??>B$%>D‘ <+‘ 1.D1,<‘ J>‘ ' 0D‘ ,<. 1#?%E‘ ?+<+>D‘ <+‘ +>0‘ 1.‘ +J>%,>‘ +@1#?<0D‘ @1.?>!‘ <0D‘ +J>0+E!‘ <0D‘ >,>0‘ '1.+E‘ +@1#?<0D‘ '11+!‘ >KC%#? ,>‘ 1'‘ '1.<=>.?‘ 0‘ 10>‘ 1CC<? 10!‘ +@>‘ J@1%>‘ 0#B$>.!‘ 0P C%#D 0=‘ B>0‘ '1.‘ +@>‘ <.+ %%>.E‘ ?>., C>‘ <0D‘ +@>‘ '1%P %1J>.?‘ 1'‘+@>‘ C<BA!‘ ?‘ .>CH10>D‘ <+‘ > =@+E‘ +@1#?<0D‘ @>‘ ?<B>‘ 0#B$>.‘ 1'‘ $><?+?‘ 1'‘ $#.D>0‘ J>.>‘ >BP A%1E>D‘ 0‘ +.<0?A1.+ 0=‘ +@>‘ ?#AA% >?‘ .>F# .>D‘ '1.‘ +@ ?‘ B B>0?>‘ @1?+!‘ <?‘ J>%%‘ <?‘ '1.‘ A.1, ? 10 0=‘ +@>‘ C10P F#>.>D‘ C + >?‘ ?+<0D 0=‘ 0‘ +@>‘ B D?+‘ 1'‘ <‘ D>?1%<+>D‘ C1#0+.E‘ @>‘ F#>>0!‘ J@1‘ +11H‘ +@ ?‘ D>A<.+B>0+‘ #0D>.‘ @>.‘ ?A>C <%‘ C1=0 ?<0C>!‘ B1,>D‘ <%10=‘ +@>‘ '.10P + >.!‘ ?+<+ 10 0=‘ @>.?>%'‘ <+‘ A1 0+?‘ B1?+‘ C10+ =#1#?‘ +1

$<.C<!‘ >E>?‘ D>‘ .<P =10!‘ +1B‘ ‘ '1%‘ 6 O >$. ?M ?>0? ?!‘ >0#B‘ >?+‘ <‘ >.D'>+‘ % ?‘ >C‘ ‘ % $‘ ,‘ C‘ O >.M 0<%D>G‘ ?+!‘ D>‘ %1?‘ >E>?!‘ ‘ C‘ KK, O <.B1%!‘ >$>%!‘ D>‘ %1? 1. ?C1?!‘ % $‘ ‘ C‘ K

5#%=<.!‘ J@1‘ ?‘ $E‘ 01‘ B><0?‘ $=1+>D'1.‘ +@>‘ <=>!‘ ?>>B?‘ +1‘ +@ 0H‘ +@>‘ % $>.<%‘ +>.B?‘ =.<0+>D‘ $E‘ >.D 0<0D‘ +1‘ +@>‘ >0>B >?‘ 1'‘ +@>‘ '<+@‘ ?+<0D‘ 0‘ 0>>D‘ 1"A>.P A>+#<%‘ <A1%1=E‘ >>‘ C‘ K% ,‘ >+‘ A<?? B

+@>' ?C>0>' 1'' 1A>.<+ 10?' @>.>!' $E' B><0?' 1'' A1?+?' .>=#%<.%E' >?+<$% ?@>D!' ?@>' .>C> ,>D' @1#.%E' 0+>%% =>0C>' 1'' +@>' J<.' +' +@>' ?<B>' + B>' ?@>' +.<0?B ++>D' +@>' .>F# ? +>' .. #0 + 10?' '1.' +@>' +.11A?!' $E' B><0?' 1'' C10P ,1E?' ?#'' C >0+%E' ?+.10=' +1' ?>C#.>' +@>B' <=< 0?+' +@>' ..#A+ 10?' 1'' +@>' J %E' >0>B E T

?<$>%%<!' ?1% C +1#?' '1.' >,>.E+@ 0=' +@<+' C10C>.0>D' +@>' J>%'<.>' 1'' @>.' A>1A%>!' ?1B>+ B>?' , ? +>D' +@>' C<BA' 0' A>.?10!' >0C1#.<= 0=' +@>' ?1%D >.?' +1' >0D#.>' +@>' @<.D?@ A?' 1'' J<.!' <0D' .>% >, 0=' +@> .' 0>C>?? + >?' $E' % $>.<% D10<+ 10?' 1'' C%1+@>?' <0D' B10>E' @>' C<#?>D' <%?1' <' 0#B$>.' 1''%<.=>' +>0+?!' H01J0' <?' Q' +@>' F#>>0 ?' @1?A +<%!R +1' $>' <%J<E?' .>?>.,>D' '1.' +@>'? CH' <0D' J1#0D>D!' <0D' '#.0 ?@>D' +@>B' J +@' +@>' .>F# ? +>' <++>0D<0+?' <0D' B>D C 0>?' <+' @>.' 1J0' C@<.=>' @ ?' ?' C10? D>.>D' +@>' ><.% >?+' <++>BA+' <+' +@>' '1.B<+ 10' 1'' <' .>=#%<.'C<BA' @1?A +<% 10' .>C1.D '

?<$>%%<' B<E' $>' .>=<.D>D' <?' +@>' ?1#% 1'' +@ ?' J<.' @>' >0=<=>D' 0' +' J +@' +@>' B1?+' >K<%+>D' , >J?!' %>??' +1' <CF# .>' +>.. +1.E' +@<0' +1' .>M>?+<$% ?@' +@>' >BA .>' 1''+@>' C.1?? 1,>.' +@>' <0C >0+' D1B< 0' 1'' @. ?+>0D1B' 0' +@ ?' A1 0+' ?@>' C10C>0+.<+>D' <%%' +@>' >0>.= >?' 1'' @>.' A1J>.'#%' B 0D!' 0>,>.' ?#''>. 0=' @>.?>%'' +1' $>' D ,>.+>D' $E' <0E' ?#$1.D 0<+>' 0+>.>?+' '.1B' +@ ?' 10>' =.><+' <0D' =%1. 1#?' 1$">C+' @>0' +@>' H 0=!' 0' 646^

T' >B<%D>G!' ' C' KK, O' O <.B1%!' >$>% 10' D>' %1?' 5#%=<.!' .10C<' D>' %1?' >E>?' ' % $' ' C' K <+1% C1?!' C' KK ' KKK ' K% O' >$. ??>0? ?!' >. >?+' < >.D'>+' ' >B' D>' %<' ><% C<D!' D>' % ?<$' >C' ' % $' , ' C' , O ?+' +1B' , ' %#?+'

J1#%D‘ @<,>‘ A<#?>D‘ <‘ J@ %>‘ '.1B‘ +@>‘ .<0<D 0>‘ J<.!‘ 0‘ 1.D>.‘ +1‘ A.1?>C#+>‘ @ ?‘ C%< B?‘ +1‘ 1#?? %%10‘ <=< 0?+‘ +@>‘ .>0C@!‘ 10‘ +@>‘ D>B ?>‘ 1'‘ 1# ?‘ ; !‘ ?<$>%%<‘ ?+.10=%E‘ 1$">C+>D‘ +1‘ +L‘ $#+!‘ ' 0D 0=‘ @>.‘ .>B10?+.<0C>!‘ 0>''>C+#<%!‘ ?@>‘ %>'+‘ @>.‘ @#?$<0D‘ 0‘ .<=10!‘ <0D‘ .>P A< .>D‘ +1‘ 1.D1,<!‘ J@>.>‘ ?@>‘ A%<C>D‘ +@>‘ <.D 0<%‘ 1'‘ A< 0‘ <+‘ +@>‘ @><D‘ 1'‘ +@>‘ <.BE!‘ <0D‘ A.>A<.>D‘ +1‘ 1A>0‘ +@>‘ C<BA< =0‘ 0‘ +@>‘ #?#<%‘ , =1.1#?‘ B<00>.‘ >.>!‘ @1J>,>.!‘ ?@>‘ J<?‘ ?110‘ "1 0>D‘ $E‘ >.D 0<0D!‘ J@1!‘ 10‘ <‘ C11%>.‘ .>, ? 10‘ 1'‘ +@>‘ ?#$">C+!‘ D>>B>D‘ +‘ A.#D>0+‘ +1‘ A1?+A10>‘ @ ?‘ A.1">C+>D‘ >0+>.A. ?>

0‘ <01+@>.‘ 1CC<? 10!‘ 0‘ +@>‘ ?<B>‘ E><.!‘ J@>0‘ +@>‘ 01$%>?!‘ '<+ =#>D‘ J +@‘ +@>‘ ?>., C>!‘ @<D‘ A>.?#<D>D‘ +@>‘ H 0=‘ +1‘ .>+ .>‘ ><.%>.!‘ +@<0‘ #?#<%!‘ +@>‘ F#>>0!‘ D ??<P + ?' >D‘ J +@‘ +@>‘ A.1C>>D 0=!‘ <DD.>??>D‘ <‘ %>++>.‘ +1‘ @>.‘ @#?$<0D!‘ 0‘ J@ C@!‘ <'+>.‘ .>A.>?>0+ 0=‘ +@>‘ D ?P A.1A1.+ 10‘ 1'‘ +@>‘ .>?#%+?‘ +1‘ +@>‘ A.>A<.<+ 10?!‘ ?@>‘ $>?1#=@+‘ @ B‘ +1‘ H>>A‘ +@>‘ ' >%D‘ <?‘ %10=‘ <?‘ +@>‘ ?><?10‘ ?@1#%D‘ ?>.,>‘ @>‘ =.<0D>>?!‘ ?<E?‘ >$. K<!‘ B1.+ ' >D‘ <+‘ $> 0=‘ ?#.A<??>D‘ 0‘ G><%‘ '1.‘ +@>‘ @1%E‘ J<.‘ $E‘ < J1B<0!‘ ><=>.%E‘ C1%%>C+>D‘ +@> .‘ '1.C>?!‘ J@ C@‘ @<D‘ $>>0‘ A<.+%E‘ D ?$<0D>D!‘ <0D‘ .>+#.0>D‘ <C.1??‘ +@>‘ $1.P D>.?‘ +1‘ .>0>J‘ @1?+ % + >? T

‘ C .C#B?+<0C>!‘ J@ C@‘ @<D‘ '.>F#>0+%E‘ '.#?+.<+>D‘ +@>‘ B1?+‘ B<=0 ' C>0+‘ B % +<.E‘ >0+>.A. ?>?‘ #0D>.‘ '1.P B>.‘ .> =0?!‘ J<?‘ +@>‘ '<C+ 10?‘ 1'‘ +@>?>‘ A1+>0+‘ ,<??<%?!‘ J@1!‘ 0D>A>0D>0+‘ 1'‘ ><C@‘ 1+@>.!‘ <0D‘ <%B1?+‘ 1'‘ +@>

N‘ >$. ??>0? ?!‘ >.#.<‘ C?+<\#B!‘ >C‘ L‘ ‘ %$‘ ‘C!, O5#%=<.!‘ .10C<!‘ C‘ KKK

□ ‘ ‘

C.1JO!‘ C1#%D‘ .<.>%E‘ $>‘ $.1#=@+‘ +1‘ <C+‘ 0‘ >'' C >0+‘ C1OC>.+‘ '1.‘ <‘ %>0=+@‘ 1''+ B>!‘ <0D‘ $.1H>‘ #A‘ +@>‘ C<BA‘ 10‘ +@>‘ ?% =@+>?+‘ A>.?10<%‘ "><%1#?E‘ >.D 0<0D‘ >KP A>. >0C>D‘ ?1B>+@ 0=‘ 1'‘ +@ ?‘ +>BA>.‘ 0‘ +@>‘ #H>‘ 1''‘ >D 0<‘ >%!‘ J@1!‘ J@>0‘ @>‘ @<D‘ .>C> ,>D‘ 1.D>.?‘ +1‘ D>+<C@‘ <‘ C1.A?‘ 1''@ ?‘ +.11A?‘ +1‘ +@>‘ ?#AA1.+‘ 1''+@>‘ 1#0+‘ 1''‘ >0<,>0+>!‘ .>'#?>D!‘ .>A%E 0=‘ +1‘ +@>‘ B>?P ?>0=>.!‘ Q‘ >%%‘ E1#.‘ B<?+>.‘ +@<+‘ ‘ C<B>‘ @>.>‘ +1‘ ?>.,>‘ @ B‘ <+‘ +@>‘ @><D‘ 1'' BE‘ @1#?>@1%D‘ +.11A?!‘ <0D‘ +@>E‘ =1‘ 01J@>.>‘ J +@1#+‘ B>‘ <?‘ +@> .‘ %><D>. R‘ @>‘ ?1P ,>.> =0?‘ B<0<=>D‘ +@ ?‘ ' >.E‘ ?A . +‘ J +@‘ +@>‘ =.><+>?+‘ <DD.>??!‘ <0D!‘ 0?+><D‘ 1''‘ C#.$ 0=‘ +!‘ >0D><,1#.>D‘ +1‘ D .>C+‘ +‘ 0‘ +@>‘ A<+@‘ 1''‘ @101#.<$%>‘ >B#%<+ 10‘ @>‘ F#>>0!‘ J@1‘ <?‘ +@> .‘ @>.>D +<.E‘ ?1,>.> =0‘ .>C> ,>D‘ <‘ B1.>‘ D>'>.>0+ <%‘ @1B<=>‘ '.1B‘ @>.‘ <?+ % <0‘ ?#$">C+?‘ +@<0‘ >.D 0<0D!‘ '.>F#>0+%E‘ J .1+>‘ +1‘ @>.‘ 01$%>?‘ 0‘ +@>‘ C<BA!‘ C1BA% B>0+ 0=‘ ?1B>‘ 10‘ +@> .‘ <C@ >,>P B>0+?!‘ <0D‘ 1+@>.?%>??‘ '1.+#0<+>‘ 10‘ +@> .‘ 0+>0+ 10?!‘ +@#?‘ C@>>. 0=‘ +@>‘ @><.+?‘ 1''<%%!‘ ?<E?‘ +@>‘ C@.10 C%>.!‘ <0D‘ ?+ B#%<+ 0=‘ +@>B‘ +1‘ D>>D?‘ 1''@>.1 ?B‘ 0‘ +@>‘ B1?+‘ D>?>., 0=‘ ?@>‘ '.>>%E‘ %<, ?@>D‘ +@1?>‘ @101#.?‘ J@ C@‘ C1?+‘ % ++%>‘ +1‘ +@>‘ ?1,>.> =0!‘ $#+‘ <.>‘ B1?+‘ =.<+>'#%‘ +1‘ +@>‘ ?#$">C+‘ ‘ @>‘ <.F# ?‘ 1''‘ <D G!‘ J@1‘ J<?‘ A.>>B 0>0+‘ <$1,>‘ >,>.E‘ 1+@>.‘ C<A+< 0‘ 0‘ +@ ?‘ J<.‘ '1.‘ ?<=<C +E‘ <0D‘ C10D#C+!‘ J<?‘ .>J<.D>D!‘ <'+>.‘ &@ ?‘ $. %% <0+‘ ?#.A. ?>‘ 1''V<@<.<!‘ J +@‘ +@>‘ = '+‘ 1'' +@<+‘ C +E!‘ <0D‘ +@>‘ + +%>?‘ 1''‘ <.F# ?‘ 1''V<@<.<‘ <0D‘ #H>‘ 1''‘ <D G‘ @>‘ J<.. 1.!‘ @1J>,>.!‘ J<?‘ #0J %% 0=‘ +1‘ .>? =0‘ +@>‘ <OC >0+‘ + +%>‘ #0D>.‘ J@ C@‘ @>‘ @<D‘ J10‘ @ ?

%<#.>%?!' <0D' >,>.' <'+>.' ?#$?C. $>D' @ B?>%'!' <.F# ?M'
#H>' 1'' <D G T' + %%' B1.>' >B A@<+ C' @101#.?' J>.>'
C10'>..>D' 10' +@>' 1#0+' D>' <$.<!' <'+>.' +@>' C<A+#.>'
1'' +@>' S 0=' 1'' .<0<D<' @>0' @>' A.>?>0+>D' @ BP
?>%'' $>'1.>' +@>' ?1,>.> =0?!' J@1' J>.>' <+' +1. <!' +@>'
C%>.=E' <0D' C<,<%>.?' 1'' +@>' C +E' B<.C@>D' 1#+' +1'
.>C> ,>' @ B!' <0D' @>' >0+>.>D' 0' ?1%>B0' A.1C>?? 10' 10'
+@>' . =@+' @<0D' 1'' +@>' .<0D' <.D 0<%' 1'' A< 0' ?'
@>' <D,<0C>D' #A' +@>' @<%%' 1'' <#D >0C>' 0' +@>' .1E<%'
A<%<C>!' +@>' H 0=' <0D' F#>>0' C<B>' '1. J<.D' +1' J>%C1B>'
@ B!' <0D' +@>0' ?><+>D' @ B' $E' +@>B?>%,>?' <+' +<$%>!'
D>C%<. 0=' +@<+' Q' +@>' C10F#>.1.' 1'' H 0=?' ?@1#%D' ? +'
J +@' H 0=? R' @>?>' @101#.?' J>.>' '1%%1J>D' $E' +@>'
B1.>' ?#$?+<0+ <%' =.<+# +E' 1'' ! ' B<.<,>D ?' <0P
0#<%' .>0+L' Q' <' '<+' D10<+ ,>!R' ?<E?' <0' 1%D' C@.10 C%>.!'
Q' '1.' ?1' %><0' <' +.><?BE R' @>' E1#0=' %C<ED>' D>' %1?'
10G>%>?' >KA>. >0C>D' <' ? B %<.' .>C>A+ 10' 10' +@>' >0P
?# 0=' D<E' #C@' <C+?' 1'' .1E<%' C10D>?C>0? 10' J>.>'
>?A>C <%%E' =.<+>'#%' +1' +@>' 01$ % +E' 1''<' C1#.+' C .C#BP
?C. $>D' $>E10D' >,>.E' 1+@>.' 0' #.1A>' $E' ?+<+>%E' <0D'
C>.>B10 1#?' >+ F#>++> +

@>' D#.<+ 10' 1''+@>' J<.' 1'' .<0<D<' J<?' ?#C@' <?'
+1' .< ?>' +@>' B % + <' +@.1#=@1#+' +@>' H 0=D1B' 0><.%E'
+1' <' %>,>%' J +@' .>=#%<.' +.11A?' <0E' 1''+@>?>' %>, >?

T' '+>.<01+@>.D<. 0=<C@>,>M B>0+!' +@>' ?1,>.> =0?=.<0+>%D@ B'
<0D' @ ?' @> .?' +@U .1E<%' ?# +' J1.0' $E' +@>' B10<.C@?' 1'' <?+ %>' 10'
<DEMD<E!' <A.>?>0+!' ?<E?' $<.M C<!' 01+' +1' $>' >?+ B<+>D' $E' +?' C1?+'
>E>?D>' .<=10!' +1B' '1%'

+' $<.C<!' >E>?' D>' .<=10!' #$' ?#A.< O 5>+' <.+E.?' A?M
+1%<.#B' A#?!' % $' ' >A' 6 O'
#.<D>'%1?5<%<C 1?!' 'C' K, '
O'V#. +<!' 0<%>?' D>' .<=10!'
+1B' ,'C' ,

D>.<+>%Eʻ <DD C+>Dʻ <+ʻ +@<+ʻ D<Eʻ J<?ʻ .>?+.< 0>Dʻ $Eʻ +@>ʻ ?>,>.>?+ʻ A>0<%+ >? T

@>ʻ $. %% <0+ʻ ?#CC>??>?ʻ 1'ʻ +@>ʻ A<0 ?@ʻ ?1,>.> =0?ʻ D ''#?>Dʻ =>0>.<%ʻ ?<+ ?'<C+ 10ʻ +@.1#=@1#+ʻ @. ?+>0D1Bʻ <0Dʻ,1%#0+>>.?ʻ'%1CH>Dʻ+1ʻ+@>ʻC<BAʻ'.1Bʻ .<0C>ʻ 0=P %<0Dʻ <0Dʻ 1+@>.ʻ A<.+?ʻ 1'ʻ #.1A>ʻ><=>.ʻ+1ʻ A<.+ C A<+>ʻ $ʻ +@>ʻ=%1. 1#?ʻ +. #BA@?ʻ 1'ʻ+@>ʻC.1??ʻ B10=ʻ +@>?>ʻ J<?ʻ<ʻC1.A?ʻ1'ʻ J ??ʻ B>.C>0<. >?ʻ J@1ʻ <.>ʻ+@#?ʻ ? BP A%Eʻ D>?C. $>Dʻ $Eʻ 5#%=<.ʻ Qʻ @>.>ʻ"1 0>Dʻ+@>ʻ .1E<% ?+<0D<.Dʻ<ʻ$1DEʻ1'ʻB>0ʻ'.1Bʻ J +G>.%<0Dʻ<ʻC1#0+.Eʻ 0ʻ AA>.ʻ >.B<0Eʻ @>?>ʻB>0ʻJ>.>ʻ$1%Dʻ1'ʻ@><.+ʻ <0Dʻ'1#=@+ʻ10ʻ'11+ʻ ?ʻ+@>Eʻ J>.>ʻ.>?1%,>Dʻ0>,>.ʻ+1ʻ +#.0ʻ+@>.ʻ $<CH?ʻ#A10ʻ+@>ʻ>0>BEʻ+@>Eʻ J1.>ʻ01ʻD>P '>0?,>ʻ<.B1#.ʻ>KC>A+ʻ 0ʻ'.10+ʻ$Eʻ J@ C@ʻ B><0?ʻ+@>Eʻ J>.>ʻ%>??ʻ>0C#B$>.>Dʻ 0ʻ ' =@+ʻ @>Eʻ B<D>ʻ<ʻ +.<D>ʻ 1'ʻ J<.ʻ %>++ 0=ʻ +@>B?>%,>?ʻ 1#+ʻ <?ʻ B>.C>0<. >?Lʻ $#+ʻ +@>Eʻ >?A1#?>Dʻ 10%Eʻ<ʻ"#?+ʻ F#<..>%ʻ '1.ʻ +@>Eʻ J>.>ʻ D>,1#+ʻ<0Dʻ%1E<% @. ?+ <0?ʻ<0Dʻ<$1,>ʻ<%%<$@1..>Dʻ .<A 0>ʻ<?ʻ<ʻ=.><+ʻ ? 0 R'ʻ ʻ @>ʻ J ??ʻ@<Dʻ.>C>0+%Eʻ >?+<$% ?@>Dʻ+@> .ʻ B % +<.Eʻ.>01J0ʻ$Eʻ+@>ʻD ?C1B' +#.>ʻ 1'ʻ @<.%>?ʻ+@>ʻ 1%Dʻ J@>0ʻ+@>Eʻ' .?+ʻA.1,>Dʻ+@>ʻ?#A>P . 1. +Eʻ 1'ʻ 0'<0+.Eʻ1,>.ʻ+@>ʻ $>?+M<AA1 0+>Dʻ C@ ,<%.Eʻ 1'ʻ #.1A>ʻ @> .ʻ >K<BA%>ʻ 01ʻ D1#$+ʻ C10+. $#+>Dʻ +1ʻ+@>ʻ'1.B<+ 10ʻ1'ʻ+@<+ʻ 0, 0C $%>ʻ A<0 ?@ʻ 0'<0+.Eʻ J@ C@ʻ #0D>.ʻ+@>ʻ .><+ʻ <A+< 0ʻ <0Dʻ@ ?ʻ ?#CC>??1.?Tʻ B<Eʻ$>ʻ ?< Dʻ+1ʻ@<,>ʻ D>C D>Dʻ+@>ʻ'<+>ʻ1'ʻ #.1A>ʻ'1.ʻ B1.>ʻ+@<0ʻ@<%'ʻ<ʻC>0+#.E

Qʻ $ '% ʻ*),(%5ʻ ʻ C ʻ 5!ʻ ʻ ,ʻ (ʻ,ʻ,4ʻ,,ʻ(ʻF! *% ,(ʻ (ʻ FFF,ʻ F.,,ʻ F,Fʻ ʻ *),(%5ʻ ʻ C ʻ*% ; Jʻ 4,) ,ʻ ʻ : ʻ % ,(ʻ(ʻFF,!

B10=' +@>' '1.> =0>.?' J<?' 10>' '.1B' +@>' D ?+<0+' ?%>' 1'' . +< 0!' +@>' <.%'1'' ,>.?!' 1.' 10D>'D>' ?C<M' %<?!' <?' @>' ?' C<%%>D!' '.1B' @ ?' A<+.10EB C!' $E' +@>' A<P 0 ?@' J. +>.?' Q' @>.>' C<B>' '.1B' . +< 0!R ?<E?' 5>+>.' <.+E.!' Q'<' C<,<%>.!' E1#0=!' J><%+@E!' <0D' @ =@M$1.0' >' J<?' <%%>D' +1' +@>' $%11D' .1E<%' 1'' 0=%<0D' >' J<?' <++>0D>D' $E'<' $><#+ '#%' +.< 0' D'' @1#?>@1%D' +.11A?!' +@.>>' @#0D.>D' 0' 0#B$>.!' <.B>D!' <'+>.' +@>' '<?@ 10' 1'' +@> .' %<0D!' J +@' %10=' $1J'<0D' $<++%>M<K> R' @ ?' 01$%>B<0' A<.+ C#%<.%E' D ?+ 0=# ?@P >D' @ B?>%'' $E' @ ?' =<%%<0+.E' 0' +@>' ?>C10D' ? >=>' 1'' 1"<!' 64 ' <, 0=' <?H>D' %><,>' +1' ' =@+' <'+>.' +@>' B<00>.' 1'' @ ?' C1#0+.E!' ?<E?' +@>' 0D<%#? <0' C@.10 M' C%>.'' @>' D ?B1#0+>D' '.1B' @ ?' =11D' ?+>>D!' <0D' A#+P + 0=' @ B?>%'' <+' +@>' @><D' 1'' @ ?' '1%%1J>.?!' <.B>D' % H>' @ B?>%'!' CJ' ' J +@' +@> .' ?J1.D?' <+' +@> .' +@ =@?' <0D' $<++%>M<K>?' 0' +@> .' @<0D?!' @>' D><%+' ?#C@' +>.. $%>' $%1J?' <.1#0D' @ B' <?' ' %%>D' >,>0' +@>' @<.DE' B1#0+< 0>>.?' 1''+@>' 1.+@' J +@' <?+10 ?@B>0+' 0P '1.+#0<+>%E!' "#?+' <?' +@>' ?#$#.$?' J>.>' C<.. >D!' +@>' =11D' H0 =@+!' <?' @>' J<?' B1#0+ 0=' <' ?C<% 0=M%<DD>.!' .>C> ,>D' <' $%1J' '.1B' <' ?+10>' J@ C@' D<?@>D' 1#+' +J1' 1'' @ ?' +>>+@!' <0D' ?+.>+C@>D' @ B' ?>0?>%>??' 10' +@>' =.1#0D' >' J<?' .>B1,>D' +1' @ ?' +>0+!' J@>.>' @>' %<E' ?1B>' + B>' #0D>.' B>D C<%+.><+B>0+L' <0D' J@>0' @>' @<D' ?#'% C>0+%E'.>C1,>.>D!' @>' .>C> ,>D'<', ?+' '.1B' +@>' H 0=' <0D' F#>>0!' J@1' C1BA% B>0+>D' @ B' 10' @ ?' A.1JP >??!' <0D' +>?+ ' >D' +@> .' ?EBA<+@E' '1.' @ ?' B ?'1.+#0>' Q' +' ?' % ++%>!R .>A% >D' @>!' +1' %1?>' <' '>J' +>>+@' 0' +@>' ?>., C>' 1'' @ B' J@1' @<?' ',.)' B>' <%%' $' 5 [

@>'<DD>D!' Q' J@1' .><.>D' +@ ?' '<$. C!' @<?' 10%E' 1A>0>D' <'
J 0D1J' 0' 1.D>.' +1' D ?C>.0' +@>' B1.>' .><D %E' J@<+'
A<??>?' J +@ 0 R' ' '<C>+ 1#?' .>?A10?>!' ?<E?' 5>+>.'
@%<.+E.!' J@ C@' =<,>' #0C1B B10' ?<+ ?'<C+ 10' +1' +@>'
?1,>.> =0? T

@>' F#>>0!' 01+' %10=' <'+>.!' +>?+ ' >D' @>.' ?>0?>' 1''
+@>'>< ?'?>., C>?' $E' <' B<=0 ' C>0+' %<.=>??!' C10? ?+ 0=!'
<B10=' 1+@>.' +@ 0=?!' 1'' +J>%,>' 0D<%#? <0' @1.?>?!'
+J1' C1#C@>?' J +@' . C@%E' J .1#=@+' @<0= 0=?' <0D' C1,>.P
0=?' 1'' C%1+@' 1'' =1%D!' J +@' <' F#<0+ +E' 1'' ' 0>' % 0>0!'
<0D' ?#BA+#1#?' A<, % 10?' '1.' @ B?>%''<0D' ?# +>' @>'
$.<,>' H0 =@+' ?>>B?' +1' @<,>' $>>0' ?<+ ?' >D' J +@' +@ ?'
+<?+>' 1''+@>' 11. ?@' J<.?!' '1.' @>' ?110' <'+>.' .>+#.0>D'
+1' 0=%<0D!' <0D' 0' 644' A<??>D' 1,>.' +1' .<0$>!'
J@>.>' @ ?' @1+' ?A . +' A.1BA+>D' @ B' +1' +<H>' A<.+' 0'
+@>' '>#D<%' '<C+ 10?' 1'' +@<+' C1#0+.E!' 0' J@ C@' @>' %1?+'
@ ?' % '>!' ' =@+ 0=' '1.' +@>' #H>' 1'' . ++<0E '

@>' A1BA' J +@' J@ C@' +@>' B % +<.E' B1,>B>0+?'
J>.>' C10D#C+>D' 0' +@>?>' C<BA< =0?!' =<,>' +@>' ?C>0>'
.<+@>.' +@>' < .' 1'' <' C1#.+' A<=><0+!' +@<0' +@<+' 1'' +@>'
?+>.0' <..<E' 1''J<.' @>' J<.' J<?' 10>' J@ C@!' <AA><%P
0=' $1+@' +1' A. 0C A%>?' 1'' .>% = 10' <0D' A<+. 1+ ?B!' J<?'
J>%%' C<%C#%<+>D' +1' 0'%<B>' +@>' B<= 0<+ 10?' 1'' +@>'
A<0 ?@' C<,<% >.?!' >?A>C <%%E' +@>' B1.>' E1#+@'#%!' <0D'
+@>E' A1#.>D' 0+1' +@>' ' >%D!' ><=>.' +1' D ?A%<E' +@>BP
?>%,>?' #0D>.' +@>' >E>' 1'' +@> .' %%#?+. 1#?' F#>>0' L' J@1!'
<?' ?@>' .1D>' +@.1#=@' +@>' .<0H?!' B1#0+>D' 10' @>.' J<.M

T' 5>+' <.+E.?' A?+1%<.#B' +' #%%<#B>'D>'%<% =0E' ?+!'
A#?!' %$' '>A' K O #.<'D>' D>' @<.%>?' '>D'5<.?!' 9!'
%1?'5<%<C1?!' 'C' KK, ! 33!'H J HD!

@1.?>!' <0D' C%<D' 0' C1BA%>+>' B<%!' <''1.D>D' 01' $<D' A>.?10 ' C<+ 10' 1'' +@>' =>0 #?' 1'' C@ ,<%.E' @>' A1P +>0+' <0D' J><%+@E' $<.10?' >K@ $ +>D' 0' +@>' C<BA' <%%' +@>' B<=0 ' C>0C>' 1'' A. 0C>?' @>' A<, % 10?' D>C1P .<+>D' J +@' ,<. 1#?' C1%1#.>D' A>0010?!' <0D' >B$%<G10>D' J +@' +@>' <.B1. <%' $><. 0=?' 1'' +@> .' <0C >0+' @1#?>?!' ?@10>' J +@' <' ?A%>0D1#.' J@ C@' <' <?+ % <0' J. +>.' % H>0?' +1' +@<+' 1'' +@>' C +E' 1'' >, %%> T' @>E' <%M& <E?' <AA><.>D' ?#..1#0D>D' $E' <' +@.10=' 1'' A<=>?' '&=1.P =>1#?' % ,>. >?!' <0D' <+' 0 =@+' J>.>' A.>C>D>D' $E' <' B#%P + +#D>' 1'' +1.C@>?' J@ C@' ?@>D' <' .<D <0C>' % H>' +@<+' 1'' D<E' @>E' , >D' J +@' ><C@' 1+@>.' 0' +@>' C1?+% 0>??' 1'' +@> .' <AA<.>%!' +@> .' >F# A<=>' <0D' A%<+>!' <0D' 0' +@>' ,<. >+E' <0D' D>% C<CE' 1'' +@>' D< 0+ >?' J +@' J@ C@' +@> .' +<$%>?' J>.>' C1,>.>D '

>.D 0<0D' <0D' ?<$>%%<' ?<J' J +@' .>=.>+' +@ ?' %<, ?@' 1?+>0+<+ 10!' <0D' A. ,<+>%E' .>B10?+.<+>D' J +@' ?1B>' 1'' +@>' A. 0C A<%' =.<0D>>?' 10' +?' >, %' +>0D>0CE!' >?A>C <%%E' 0' ?>D#C 0=' +@>' 0'>. 1.' <0D' A11.>.' 01$ % +E' 0+1' >KP A>0D +#.>?' $>E10D' +@> .' B><0?' @ ?' E$<. +>' 0P D#%=>0C>!' @1J>,>.!' D1>?' 01+' ?>>B' +1' @<,>' BA< .>D' +@>' B<.+ <%' ?A . +' 1'' +@>' 01$%>?' 0' <%%' 1CC<? 10?!' +@>E' C10+>0D>D' J +@' ><C@' 1+@>.' '1.' +% >' A1?+' 1'' D<0P =>.' @>' #H>' D>%' 0'<0+<D1!' +@>' @><D' 1'' +@>' A1J>.'#%' @1#?>' 1'' >0D1G<!' J<?' C10?A C#1#?' <$1,>' <%%' '1.' +@>' B<=0 ' C>0C>' 1'' @ ?' +.< 0' +' +@>' ? >=>

Q' *$ %' 5' ' % %(, ' ! A' %)(,)' 3 . 4' ,0, !' (!' FF.!' A, ' (, C' .)' 4 0 ' N$),'%')% ' 5' ., %' 3!' A' B' 9 5'A%5' 3 $ 5', ' 4
% $ ',) ', ' %3' B%' ( ); ' $ '% ' *)' 5' ' C ' 3,($ $' 0 ', ' 1%'),0,( )(' % *% ,(' (' F,!

1 '' %%1.<! 64 ! @>' 1$+< 0>D' A>.B ?? 10' +1' %><D' +@>' ?+1.B 0=' A<.+E' ?' @ ?' '1%%1J>.?' A.>??>D' 10J<.D?' +1' +@>' $.><C@! +@>E' J>.>' .>C> ,>D' J +@' ?#C@' <' ?+1.B' 1'' B ?? %>?' <?' B<D>' +@>B' '<%+>.' '1.' <' B1B>0+ ` % <+Z' BE' B>0!R' C. >D' @>!' Q' D1' E1#' '< %' B>' <+' +@ ?' @1#.2' @<%%' J>' $>' +<#0+>D' J +@' $><. 0=' B1.>' '0>.E' 10' 1#.' $<CH?' +@<0' C1#.<=>' 0' 1#.' @><.+?2' >+' #U 01+!' 0' 1D?' 0<B>!' $>' %<#=@>D' <+' <?' B>.>' @1% D<E' U 1%D>.?R ?' ,<??<%?!' ?+#0=' J +@' +@ ?' .>P $#H>!' .<%% >D!' <0D' A>0>+.<+ 0=' +@>' $.><C@' C<.. >D' +@>' A%<C>' $E' +@>' '#.E' 1'' +@> .' <??<#%+ T

1+J +@?+<0D 0=' +@>' .>B10?+.<0C>?' 1'' +@>' ?1,>P .> =0?' <=< 0?+' +@ ?' 1?+>0+<+ 10' 1'' %#K#.E!' +@>E' J>.>' 01+' J<0+ 0=' 0' +@>' D ?A%<E' 1'' .1E<%' ?+<+>' <0D' B<=0 ' M

T' 5#%=<.! .10C<!C'% K
%%?' 01$%>B<0!' J@1?>' 0<B>' J<?' 0=1' 1A>G D> >0D1G<!' J<?' ?10'1"+@>' .?+' D %C>' - >=1' #.+<D1*!' J@1' ?#AA1.+>D' ?<$>%P %<?C%< B?+1'+@>' C.1J0' ,>D1' J<?' A.>?>0#' <+' +@>' ?>=>' 1" %P %1.<! <0D'=,>?<B 0#+>' D>?C. A\T' +10' 1" @?' <AA><.<0C>' +@>.>' Q >' C<B>!R' ?<E?' +@<+' J.+>.!' Q' <++>0D>D' $E' <0#B>.1#?' $1DE' 1" =>0+%>B>0' <0D' C<,<%>.?!' <?' $>C<B>' ?1'=.><+'<%1.D' >' D?P A%<E>D' <%%' +@>' %#K#.>?' J@C@ $>%10=+1'<+B>' 1" A><C>L' <0D' @?+<$%>?!' J@C@ J>.>' C<.>'#%P %E'?>.,>D!' J>.>' %1<D>D' J +@' .C@ <0D' C#.1#?%E' J.1#=@#' A%<+>!' 1" J@C@ @>' @<D' <'=.><+>.' A.1'#P ?10' +@<0' <0E' 1+@>.' =.<0D>>' 0' +@>' H0=D1B R 0' <01+@>.' A%<C>' @>' ?<E?!' Q' @>' #H>' 0=1' J<?' <A>.'>C+' %>K<0D>.' '1.' @?%$>P .<% +E'L' 0' <%%' @?<C+10?'A. 0C>%E!' E ! !

B<0+<0 0=' #0$1#0D>D' @1?A+<P % +E' <B10=' @?' ,<??<%?' <0D' D>P A>0D<0+?!' <0D' $>%1,>D' +@.1#=@P 1#' A<0' ?' A<%<C>?' J>.>' =<.0?@>D' J +@' +@>' B1?+' C1?+%E' +<A>?+.>?!"> J>%?!' <0D'.C@?+#'%? 1"=1%D' <0D' ?%,>.' ?' C@<A>%' J<?' ' %%>D' J +@' <CC1BA%?@>D' ?0=>.?' <0D' B#?C<0?!' @?' '<%P C10?!' @1#0D?!' <0D' @?' J@1%>' @#0+0=' >?+<$% ?@B>0+!' 0C%#D0=' <' B<=0 ' C>0+' ?+#D' 1" @1.?>?!' C1#%D' 01+' $>' B<+C@>D' $E' <0E' 1+@>.' 01$%>B<0' 0' +@>' H0=D1B' " +@>' +.#+@' 1" <%%' J@C@!W C10P C%#D>?' ,>D1!' Q' ' BE?>%" @<,>' $>>0' <0'>E>M J +0>??!' <0D'>01#=@ 1+@>.?' C<0' +>?+ 'E R >>' +@>' I#0C#<=>0<?' D>' ,>D1!' - <+' ! F#0C' ! D<%' 4!*' J@1' @<?' =,>0' +@>' =>0><%1=E' 1" +@>' >0D1G<?' <0D' >0D1G01?' 0' <%%' +?' >0D%>??' .<B ' C<+10?

$.1C<D>L' <' ?C<.%>+' B<0+ %%<' 1'' +@>' 11. ?@' '<?@ 10!'
<0D' <' $%<CH' @<+' +. B B>D' J +@' =1%D' >B$.1 D>.E' @>'
H 0=' .1D>' '1. J<.D' <+' +@>' @><D' 1'' @ ?' 01$%>?' +1' .>C> ,>'
@>. ' >' J<?' D.>??>D' 0' <' C. B?10' D1#$%>+!' J +@'
" ' 1.' $.>>C@>?!' 1'' E>%%1J' ?<+ 0' ,>.' @ ?'
?@1#%D>.?' J<?' +@.1J0' <' C<??1CH' 1.' B<0+%>' 1'' . C@'
$.1C<D>!' <0D' <' ?1A.<M,>?+' 1'' +@>' ?<B>' B<+>. <%?' C10P
C><%>D' @ ?' C# .<??' E' @ ?' ? D>!' C%1?>' = .+!' @>' J1.>' <'
11. ?@' ?C B +<.L' <0D' $>0><+@' @ ?' $100>+' @ ?' @< .'
J<?' C10' 0>D'$E' <' C<A' 1.' @><DMD.>??' 1'' +@>' ' 0>?+' ?+#''
>.D 0<0D' J<?' B1#0+>D' 10' <' 01$%>' J<.M@1.?>' 1''
<' $. =@+' C@>?+0#+' C1%1#.' 0' +@>' ?A%>0D D' +.< 0' 1''
C@ ,<%.E' J@ C@' <++>0D>D' @ B!' >.0<%D>G' DJ>%%?' J +@'
B#C@' ?<+ ?'<C+ 10' 10' +@>' 0=% ?@' 1.D' C<%>?' >'
J<?' '1%%1J>D' $E' <' .>+ 0#>' 1'' ' ,>' A<=>?' <..<E>D' 0'
C1?+%E' % ,>. >?' >' J<?' ?@><+@>D' 0' C1BA%>+>' B< %!'
1,>.' J@ C@' J<?' +@.1J0' <' .>0C@' ?#.C1<+' 1'' D<.H'
? %H' $.1C<D>' ' $#CH%>.' J<?' <++<C@>D' $E' =1%D>0'
C%<?A?' +1' @ ?' <.B!' <0D' 10' @ ?' @><D' @>' J1.>' <' J@ +>'
.>0C@' @<+' J +@' A%#B>?T' @>' C<A<. ?10?' 1'' @ ?'
?+>>D' J>.>' <G#.>' ? %H!' % 0>D' J +@', 1%>+!' <0D' ?A. 0H%>D'
1,>.' J +@' ?+<.?' 1'' =1%D!' <0D' ?J>A+' +@>' =.1#0D' <?'
@>' B<0<=>D' @ ?' ' >.E' C1#.?>.' J +@' <0' ><?E' @1.?>B<0P
?@ A' +@<+' >KC +>D' =>0>.<%' <DB .<+ 10

@>' H 0=' <0D' F#>>0!' <?' +@>E' D.>J' 0><.!' $1J>D'
+@. C>' J +@' '1.B<%' .>,>.>0C>' +1' ><C@' 1+@>.L' +@>'
F#>>0' <+' +@>' ?<B>' + B>!' .< ? 0=' @>.' @<+!' .>B< 0>D'
0' @>.' C1 '' D.' @><DMD.>??!' J +@' @>.' '<C>' #0C1,>.>D'
>.D 0<0D!' . D 0=' #A!' ?<%#+>D' @>.' <''>C+ 10<+>%E' 10'
+@>' C@>>H!' <0D' +@>0!' <CC1.D 0=' +1' +@>' A.>C ?>' C@.10 M

C%>.!' $>?+1J>D' <' ? B %<.' B<.H' 1'' +>0D>.0>??' 10' @ ?' D<#=@+>.' ?<$>%%<!' <'+>.' = , 0='@>.' @ ?' A<+>.0<%' $>0>P D C+ 10' @>' .1E<%' A<.+E' J>.>' +@>0' >?C1.+>D' +1' +@>' C<BA!' J@>.>' ?# +<$%>' <CC1B B1D<+ 10?' @<D' $>>0' A.1P , D>D' '1.' +@>' F#>>0' <0D' @>.' '< .' .>+ 0#> T

+' B<E' .><D %E' $>' $>% >,>D' +@<+' +@>' ?1,>.> =0?' D D' 01+' 0>=%>C+!' 0' <' J<.' % H>' +@>' A.>?>0+!' <0' <AA><%' +1' +@>' .>% = 1#?' A. 0C A%>' ?1' D>>A%E' ?><+>D' 0' +@>' A<0P ?@' C@<.<C+>.' %%' +@> .' A#$% C' <C+?' 1?+>0+<+ 1#?%E' A.1C%< B>D' +@>' A 1#?' 0<+#.>' 1'' +@>' J1.H' 0' J@ C@' +@>E' J>.>' >0=<=>D' @>E' J>.>' <++>0D>D' 0' +@> .' >KA>D + 10?' $E' C@#.C@B>0' 1'' +@>' @ =@>?+' .<0H!' J@1' @1+' 10%E' B 0=%>D' 0' +@>' C1#0C %?' 1'' +@>' C<BA!' $#+!' % H>' +@>' $1%D' ?@1A' 1'' /<>0!' 1.' +@>' .<0D' <.D 0<%' >0D1G<!' $#CH%>D' 10' @<.0>??' 1,>.' .1C@>+' <0D' @11D!' <0D' %>D' +@> .' ?F#<D.10?' +1' +@>' ' >%D '' @>' F#>>0!' <+' 1.D1,<!' C>%>$.<+>D' +@>' + D 0=?' 1'' >,>.E' 0>J' ?#>M

T' >B<%D>G!' ?+!' D>' %1?' >E>?' <+' >.0<0D1' E' ?<$>%' ' C' KKK O @>' % ,>%E'<#+@1.' 1''Q' ' ><.' 0' A<0R'D>?C.$>?!' <B10=' 1+@>.' ?# +?' 1'' <.B1#.' ?+ %%' +1' $>' ?>>0' 0' +@>' B#?>#B' 1''+@>' <.B1#.E'<+' <D.D!' +@1?>' J1.0' $E' >.D0<0D' <0D' @?' %P %#?+.1#?' C10?1.+' W' 0' 10>' 1'' +@>' B1?+' C10?A C#1#?' ?+<+ 10?!' ?' +@>' ?# +' 1''<.B1#.' #?#<%%E' J1.0' $E' >.D0<0D' +@>' <+@1%C' >' ?>>B?' ?0#=%E' ?><+>D' #A10' @?' J<.M@1.?>!' J +@' <' A<.' 1'' .>D' ,>%,>+' $.>>C@>?!' <'+>.' +@>' B<0P 0>.' 1'' +@>' 11.?!' J +@' % '+>D' %<0C>' <0D' C%1?>D' ,G1.' @>.>' <.>' ?>,>.<%' ?# +?' 1'' >.D0<0D!' <0D' 1'' @?' F#>>0!' ?<$>%%<!' J@1 J<?' 01' ?+.<0=>.' +1' +@>' D<0=>.?' 1'' <' $<++%>' E' +@>' C1BA<.<P + ,>' @> =@+?' 1' +@>' <.B1#.!' ?<P $>%%<' J1#%D' ?>>B' +1' $>' +@>' $ =P =>.' 1'' +@>' +J1!' <?' ?@>' C>.+<0%E' J<?' +@>' $>++>.RO ><.' 0' A<0!' $E' <' E1#0=' B>.C<0!' ' .?#' >D 3!' !

' <.D0<%' >0D1G<!' 0' +@>' C<BA<=0' 1'' DI6' 1''>.>D' +@>' F#>>0' +1' .<?>' %' $1DE' 1'' @1.?>!' <0D' B<.C@' <#' +?' @><D' +1' +@>' .>% >'' 1'' %@<+0<!' <0D' <+' +@>' ?<B>' + B>' ?#AA%E' @>.' J +@' ?#C@' ?#B?' 1'' B10>E' <?' B =@#' $>' 0>C>??<.E' 0' +@>' A.>?>0#' >K P =>0CE' 5#%=<.!' .10C<' D>' %1?' >E>?' <+' C'

C>??‘1,>.‘+@>‘ 0' D>%‘ $E‘?1%>B0‘A.1C>?? 10‘ <0D‘+@<0H?P
= , 0=!‘ J +@‘@>.‘ J@1%>‘ @1#?>@1%D!‘ <?‘ J>%%‘ <?‘+@>‘01P
$ % +E!‘ '1.> =0‘ <B$<??<D1.?!‘ <0D‘ B#0 C A<%‘ '#0C+ 10P
<. >?‘ 0‘ % H>‘ B<00>.!‘ >.D 0<0D!‘ 10‘ +@>‘ .>+#.0‘
'.1B‘@ ?‘C<BA< =0?!‘ J<?‘.>C> ,>D‘ <+‘+@>‘=<+>?‘1'‘+@>‘
C +E!‘ <0D‘ >?C1.+>D‘ 0‘ ?1%>B0‘A1BA‘$>0><+@‘ <‘ . C@‘
C<01AE‘1'‘?+<+>‘ +1‘ +@>‘ C<+@>D.<%‘ C@#.C@!‘ J%>.>‘ @>‘
A.1?+.<+>D‘@ B?>%'‘ 0‘ =.<+>'#%‘ <D1.<+ 10‘1'‘+@>‘ 1.D‘
1'‘ 1?+?‘ 0+>%% =>0C>‘1'‘+@> .‘+. #BA@<0+‘A.1=.>??‘
0‘+@>‘ J<.‘J<?‘C10?+<0+%E‘+.<0?B ++>D‘+1‘+@>‘A1A>!‘
J@1‘ .>+#.0>D‘@ ?‘ $>0>D C+ 10!‘ <CC1BA<0 >D‘$E‘B1.>‘
?#$?+<0+ <%‘ B<.H?‘1'‘'<,1#.!‘ 0‘ $#%%?‘1'‘C.#?<D>!‘ <0D‘
+<K>?‘10‘ >CC%>? <?+ C<%‘ .>0+? T

@>‘C>.>B10 <%?‘1$?>.,>D‘10‘+@>‘1CC#A<+ 10‘1'‘ <
0>J‘C10F#>?+‘J>.>‘?#C@‘<?‘+1‘<''>C+‘+@>‘@><.+‘01‘
%>??‘+@<0‘+@>‘ B<= 0<+ 10‘ W‘ @>‘.1E<%‘ <%'>.>G!R‘
?<E?‘ <. 0<>1‘ C#%1!‘ Q‘.< ?>D‘+@>‘?+<0D<.D‘1'‘+@>‘
.1??!‘+@>‘?=0‘1'‘1#.‘?<%,<+ 10!‘10‘+@>‘?#BB +‘1'‘
+@>‘A. 0C A<%‘'1.+.>??!‘<0D‘<%%‘J@1‘$>@>%D‘+‘A.1?+.<+P
>D‘+@>B?>%,>?‘10‘+@> .‘H0>>?‘0‘?%>0+‘J1.?@A‘1'‘
+@>‘ %B =@+E!‘J@%>‘+@>‘A. >?+?‘C@<#0%>D‘+@>‘=%1. 1#?‘
<0+@>B!‘X# ‘$ ‘ ‘ @>‘>0? =0‘1.‘A>0010‘
1'‘ +‘/<B>?!‘+@>‘C@ ,<%. C‘A<+.10‘1'‘ A< 0!‘J<?‘+@>0‘
#0'1%D>D!‘<0D‘<%%‘ 0,1H>D‘@ ?‘$%>??>D‘0<B>‘ <?+%E‘
J<?‘D ?A%<E>D‘+@>‘$<00>.‘1'‘+@>‘?1,>.> =0?!‘>B$%<P
G10>D‘J +@‘+@>‘.1E<%‘<.B?!‘<+‘J@C@‘+@>‘J@1%>‘<.BE‘
?@1#+>D‘'1.+@!‘<?‘ '‘J +@‘10>‘,1C>!‘T <?+ %>!‘ <?+ %>Z

T‘ 0‘ 64 !‘ J>‘ '0D‘ >.DM /<B>?‘1" 1BA1?+>%%<‘ <% OM
0<0D‘<0D‘?<$>%%<‘A>.'1.B0=<‘ ‘D>G‘D>‘ <.$<'<%!‘ 0<%>?!‘ ‘
A%=.B<=>‘+1‘+@>‘?@.0>‘1"‘+‘ <01‘4

'+>.‘ +@>?>‘ ?1%>B 0 + >?‘ <‘ $?@1A‘ %>D‘ +@>‘ J<E‘ +1‘ +@>‘ A. 0C A<%‘ B1?F#>!‘ J@ C@!‘ <'+>.‘ +@>‘ . +>?‘ 1'‘ A#. ' C<P + 10!‘ @>‘ C10?>C.<+>D‘ +1‘ +@>‘ ?>., C>‘ 1'‘+@>‘ +.#>‘ '< +@ ‘

@>‘ ?+<0D<.D‘ 1'‘ +@>‘ .1??‘ <$1,>‘ .>'>..>D‘ +1‘ J<?‘ 1'‘ B<?? ,>‘ ? %,>.!‘ <0D‘ J<?‘ <‘ A.>?>0+‘ '.1B‘ 51A>‘ K+#?‘ ‘ +1‘ >.D 0<0D!‘ 0‘ J@1?>‘ +>0+‘ +‘ J<?‘ <%P J<E?‘ C<.. >D‘ +@.1#=@1#+‘ +@>?>‘ C<BA< =0?‘ 0‘ <BA%>‘ ?#AA%E‘ 1'‘ $>%%?!‘ ,<?>?!‘ B ??<%?!‘ A%<+>!‘ <0D‘ 1+@>.‘ ?<C.>D‘ '#.0 +#.>!‘ J<?‘ <%?1‘ $1.0>‘ <%10=‘ J +@‘ +@>‘ C<BA!‘ $> 0=‘ A.1, D>D‘ $E‘ +@>‘ F#>>0‘ '1.‘ +@>‘ A#. ' >D‘ B1?F#>? T

@>‘ B1?+‘ +1#C@ 0=‘ A<.+‘ 1'‘ +@>‘ 0C D>0+?‘ #?#<%%E‘ 1CC#.. 0=‘ <+‘ +@>‘ ?#..>0D>.‘ 1'‘<‘ 11. ?@‘ C +E!‘ J<?‘+@>‘ % $>.<+ 10‘ 1'‘ +@>‘ @. ?+ <0‘ C<A+ ,>?‘ BB#.>D‘ 0‘ +?‘ D#0=>10?‘ 0‘ +@>‘ C<A+#.>‘ 1'‘ 10D<!‘ 648!‘ B1.>‘ +@<0‘ '1#.‘ @#0D.>D‘ 1'‘ +@>?>‘ #0'1.+#0<+>‘ A>.?10?!‘ ?>P ,>.<%‘ 1'‘ +@>B‘ C<,<% >.?‘ 1'‘ .<0H!‘ ?1B>‘ 1'‘ J@1B‘ @<D‘ $>>0‘ +<H>0‘ 0‘ +@>‘ '<+<%‘ >KA>D + 10‘ 1'‘ +@>‘ K<.F# <!‘ J>.>‘ .>?+1.>D‘ +1‘ +@>‘ % =@+‘ 1'‘ @><,>0‘ 0‘ $> 0=‘ $.1#=@+‘ $>'1.>‘ >.D 0<0D!‘ +@>E‘ A.1?+.<+>D‘ +@>BP ?>%,>?‘ 10‘ +@>‘ =.1#0D!‘ $<+@ 0=‘ @ ?‘ '>>+‘ J +@‘ +><.?!‘ J@ %>‘+@> .‘ J<0‘ <0D‘ J<?+>D‘ ' =#.>?!‘+@> .‘ D ?@>,>%%>D‘ %1CH?!‘ +@> .‘ $><.D?‘ .><C@ 0=‘ D1J0‘ +1‘ +@> .‘ = .D%>?!‘ <0D‘ +@> .‘ % B$?‘ %1<D>D‘ J +@‘ @><,E‘ B<0<C%>?!‘ $.1#=@+‘ +><.?‘ 0+1‘ +@>‘ >E>‘ 1'‘ >,>.E‘ ?A>C+<+1.‘ @>E‘ J>.>‘ +@>0‘ ?>0+‘ +1‘ A.>?>0+‘ +@>B?>%,>?‘ $>'1.>‘ +@>‘ F#>>0‘ <+‘ 1.D1,<!‘ J@1‘ % $>.<%%E‘ .>% >,>D‘ +@> .‘ 0>C>?? + >?!‘ <0D!‘ <'+>.‘ +@>‘ C>%>$.<+ 10‘ 1'‘ A#$% C‘ +@<0H?= , 0=!‘ C<#?>D‘ +@>B‘ +1‘ $>‘ C10,>E>D‘ +1‘ +@> .‘ 1J0‘ @1B>?‘ @>

T‘ ‘ <.0?>1‘ C#%1!‘ 1?<?‘ >.<1B$%>?!‘ '1%‘ 9 O #.<D>‘%1?‘ 5<%<C 1?!‘ ‘C‘ KKK ‘ KKK,

'>++>.?‘1'‘+@>‘%$>.<+>D‘C<A+ ,>?‘J>.>‘?#?A>0D>D‘0‘+@>‘C@#.C@>?!‘J@>.>‘+@>E‘C10+0#>D‘+1‘$>‘.>,>.>D‘$E‘?#CC>>D0=‘=>0>.<+10?‘<?‘+@>‘+.1A@>?‘1'‘@.?+<0‘J<.'<.>T

,>.‘?0C>‘+@>‘,C+1.E‘1'‘#C>0<!‘+@>‘?1,>.>=0?‘%<D‘B<D>‘+‘<‘C<A+<%‘A10+‘1'‘+@>.‘A1%CE‘+1‘'1B>0+‘+@>‘D??>0?10?‘1'‘+@>.‘>0>B>?‘@>‘E1#0=‘H0=‘$D<%%<@!‘<'+>.‘@?‘@#B%<+0=‘+.><+E‘J+@‘>.DP0<0D!‘%1?+‘J@<+>,>.‘C10?D>.<+10‘@>‘@<D‘A.>,1#?%E‘A1??>??>D‘%+@1#=@‘+@>‘#%+<0<‘V1.<E<!‘$E@>.‘A>.P?10<%‘<DD.>??!‘<0D‘+@>‘%<,?@‘D?+.$#+10‘1'‘+@>‘.1E<%‘+.><?#.>?!‘C10+.,>D‘+1‘B<0+<0‘<‘'<C+10‘'1.‘@>.‘?10!‘+@>‘$>++>.‘C%<??>?‘1'‘@?‘C1#0+.EB>0‘D>?A?P>D‘@B‘<?‘<‘.>0>=<D>!‘<0D‘<‘,<??<%‘1'‘+@>‘@.?+<0‘H0=‘?‘+@>.‘1%D‘B10<.C@‘@<D‘$>C1B>‘0C1BPA>+>0+!‘'.1B‘0C.><?0=‘<=>‘<0D‘$%0D0>??!‘+1‘+@>‘D#+>?‘1'‘@?‘?+<+10‘0‘+@>?>‘A>.%1#?‘+B>?!‘+@>E‘+#.0>D‘+@>.‘>E>?‘10‘@?$.1+@>.‘$D<%%<@!‘?#.0<B>D‘%‘V<=<%!‘1.‘+@>‘<%<0+!‘J@1‘@<D‘$1.0>‘?1‘C10P?A C#1#?‘<‘A<.+‘0‘+@>‘.1#+‘1'‘+@>‘K<.F#<‘@>‘<?+%<0?‘D>A C+‘+@?‘C@>'‘0‘+@>‘D<.H>?+‘C1%1#.?‘1'‘<B$+10‘<0D‘C.#>%+E!‘$#+‘+@>‘1?%>B‘J.+>.?‘<''1.D‘01‘?#C@‘0+B<+10!‘<0D‘@?‘<D,<0C>B>0+‘+1‘+@>‘+@.10>‘<+‘+@<+‘C.??‘?>>B?‘+1‘$>‘0‘?1B>‘B><?#.>‘"#?+'>D‘$E‘@?>B0>0+‘+<%>0+?‘<?‘<B%+<.E‘%><D>.

0‘@?J<E‘+1‘.<0<D<!‘@>‘>0C1#0+>.>D‘<0D‘C#+‘+1‘A>C>?‘<‘$1DE‘1'‘<%<+.<,<‘H0=@+?‘'.1B‘%@<.0<!‘<0D‘?=0<%G>D‘@?>0+.<0C>‘0+1‘@?0>J‘C<A+<%‘$E

Q‘$'%‘*),(%‘(!F.,,!J*$,%‘5‘‘%%(,‘!‘(!4,FC!

$><. 0=<%10=+@>$%11DE+.1A@ >?1'@><D?D<0=%0='.1B+@>?<DD%>M$1J!<'+>.'+@>$<.$<.1#?'<?@ 10%10=A.<C+?>D0+@>?>J<.?T+J<?1$?>.,>D+@<++@>1%DH0=$#%<C>0DD01+%10=?#.,,>@?$.1P+@>.?<CC>??10&3@>E1#0='H0=$D<%%<@?1#=@+'+@>A.1+>C+10'1''+@><?+%<0?A,>.>=0?0>,%%>!J@1!+.#>'+1'+@>.'A1%CE!?>0+@B'$<CH01+1'@?1J0'D1B0 10?J+@'+@>BB><0?1''B<H0='@><DJ<E'<=<0?+'@?.,<%'@>'<%'<H>?<0D'1+@>.'C10?D>.<+>'A>.?10?1''.<0<D<!?C<0D<%G>D'<+'+@>?>'<+<%''>#D?!'>''>C+>D'<'.>C10C%<+10!10'+@>'$<??1''<'D,?10'1''+@>'H0=D1B'$>+J>>0'+@>'A<.+>?L'$#+'J1#0D?'?1'D>>A'C1#%D'01+'$>'A>.B<0>0+%E'@><%>D'@>'?+>'1''+@>'11.?@'C<A+<%'J<?'B1?+'A.1A+1#?'+1'+@>'A#.PA1?>?'1''<C+10'+'C1,>.>D'+J1'?J>%% 0='>B0>0C>?!D,D>D''.1B'><C@'1+@>.'$E'+@>'D>>A'J<+>.?'1''+@>

ℍ Q *)5 1,)%(! 5 %4)3%)% 1!,,,! (! FFF.,,! J *%5)) 8, ! 5K > 0,2$ 5K 3%') 1!,,,! 33!/ ! I I ! J 4% (% C '5 %') 1!,,!0 ! D!

A, 0 3AC B% % 4)4C A *A,,%)(%.%, ! F%13 0 A, 1%C4 0 $)5 .)%%%A,''0:%;)%5%! %1)'A A 4% %54 ',)),)'

J Z)+% G% (%4% % (%4 G% 5 0%1% Z

8 ., %5 5 C ![

%C)0A 5 , A4%; %5!'% %)5 0 *A,,%)A %5 1 A%.4)5 1; 5)$) $,%4 3)0 1%1 @),'A A,%5C .! A$)0A N',$1; 3A%) C% @

A %4,(A, ,%) %; $5 A.$'% 3 0A 5 @,)'K % % ,)%,)4C A, 4 A 4$ %. $,) A 5% @ ,) '%5 A, B) 3,;),)0, (5,4, ,C! Y '$) 5,( )2$ 3 ($ %1$ $A 1%) " C N%'%<3 , %4 2$ $),(1 ,) 1$%4 ![*)5 1!,,,! (%3! FFF.,,,!

8#$ * , ,%) A%4 , 1$ K (%%5 2$ 1$%%V 2$ (%4 G% 0%1 % . , 3) %5 %5%1%V[

<..1' @>' +J1' '<C+ 10?' A1??>??>D' +@>B?>%,>?' .>P ?A>C+ ,>%E' 1'' +@>?>' 1AA1? +>' F#<.+>.?' $D<%%<@' J<?' 01+' <?@<B>D' +1' ?+.>0=+@>0' @ B?>%'' $E' +@>' < D' 1'' @. ?+ <0' B>.C>0<. >?L' <0D' <' D.><D'#%' C10'% C+' J<?' C<.. >D' 10' '1.' ' '+E' D<E?' <0D' 0 =@+?' J +@ 0' +@>' C +E!' J@ C@' ?J<B' J +@' +@>' $%11D' +@<+' ?@1#%D' @<,>' $>>0' ?@>D' 10%E' 0' +?' D>'>0C> T

1+J +@?+<0D 0='+@>?>'<#K % <.E'C .C#B?+<0C>?!' +@>' A.1=.>??' 1'' +@>' @. ?+ <0?' J<?' C1BA<.<+ ,>%E' ?%1J ' ,>.E' C% ''' ?>>B>D' +1' $>' C.1J0>D' J +@' <' '1.+.>??L' <0D' >,>.E' '1.+.>??' J<?' D>'>0D>D' J +@' +@>' D>?A>P .<+ 10' 1'' B>0' J %% 0=' +1' $#.E' +@>B?>%,>?' #0D>.' +?' .# 0?' @>' 1%D' B>0!' J1B>0!' <0D' C@ %D.>0!' 10' 1CP C<? 10' 1''<' ? >=>!' J>.>' '.>F#>0+%E' D>?A<+C@>D' +1' .<P 0<D<' #C@' J<?' +@>' .>?1%#+ 10!' 1.' .<+@>.' '>.1C +E!' 1'' +@>' 11.?!' +@<+' <%<=<' C%1?>D' +?' =<+>?' <=< 0?+' +@>' '#= + ,>?' '.1B' %1.<!' <'+>.' +?' ?#..>0D>.!' <0D' >,>0' B<??<C.>D' ?1B>' 1'' +@>B' 0' C1%D' $%11D' @>' ><=%>' >E>' 1'' %' V<=<%' ?>>B>D' +1' +<H>' 0' <+' <' =%<0C>' +@>' J@1%>' >K+>0+' 1''@ ?' % ++%>' +>.. +1.E!' <0D' +1' D>+>C+' >,>.E' ,#%0>.<$%>' A1 0+' 0' @ ?' <0+<=10 ?+!' J@1B' @>' >0C1#0+>.>D' J@>.>' @>' %><?+' >KA>C+>D' +L' C#++ 0=' 1''

L' *)5' 1!' 5' ' %4' 1!' ,,,!' (! FFF.,,,! J *% 5)) ' 8, !' 5K 0 ,2$' '5K 3%') '33!' H ' H ! J % ,%)%' 8, ' 5' 3%,,%' ,4!' FF.!'(!',F! J % 1 ' 4 '5' , (,4!',!'(!F,,!

Z' $C .$ %'%)5%: %)%5%')'%)) % 'C'0$ ' '% 5,)5 ' C' ' (,$5%5%) '5' % 5$ % '1$ '3%5 (,)5 4

C '2$ A%C 2$,. ' (%5%F1'3)5,)5 ' '1%)5 '('C'( )% 5' : %)%5%C' $' ' 4, 1 [' \(!

' A,' 5' #' 1,F,)'' $3!'0%('%)5'0,(,)'B, A' 1 '0' A'0 1 ' A%)'$ $% ',)' 8C %' : $ % ' 5' : %)%5%' 1!',!'3!' H !

@ ?' C10,1E?!' ?#.A. ? 0=' @ ?' '1.<= 0=' A<.+ >?!' <0D'
.>+<% <+ 0=' $E' <' D>,<?+<+ 0=' 0.1<D' 10' +@>' $1.D>.? T'
1' >''>C+#<%' <0D' A>.B<0>0+' .>? ?+<0C>!' @1J>,>.!'
C1#%D' $>' 1AA1?>D' +1' +@>' +.>B>0D1#?' >0= 0>.E' 1'' +@>'
@. ?+ <0?' 1J>.' <0D' +1J0' '> ' $>'1.>' +' >P
? D>?' +@>' A. 0C A<%' +1J0?' 1'' <.+<B<!' 1 0!' >+>0 %!'
10D<!' <.$>%%<!' %%1.<!T'+>.B>D' $E' +@>' 11.?' +@>'
=@+' E> 1C% 0!' Q' +@>' @ >%DR' 1'' .<0<D<!' <0D'
1"<!' <'+>.' <' ?>C10D' <0D' D>?A>.<+>' ? >=>' 0' +@>'
?A. 0=' 1'' 64 !' >B<%D>G' >0#B>.<+>?' B1.>' +@<0'
?>,>0+E' ?#$1.D 0<+>' A%<C>?' 0' +@>' <%' D>' <.+<B<!'
<0D' +@ .+>>0' 1+@>.?' <'+>.' +@>' '<%%' 1'' <.$>%%<' @#?'
+@>' A<0 <.D?' <D,<0C>D' +@> .' % 0>' 1'' C10F#>?+' B1.>'
+@<0' +J>0+E' %><=#>?' $>E10D' +@>' J>?+>.0' '.10+ >.' 1''
.<0<D<' @ ?' >K+>0? ,>' +.<C+' +@>E' ?+.10=%E' '1.P
+ ' >D' <0D' A>1A%>D!' A<.+%E' J +@' @. ?+ <0' ?#$">C+?!'
<0D' A<.+%E' J +@' 11. ?@!' +@>' 1. = 0<%' 1CC#A<0+?' 1''
+@>' ?1 %!' J@1' J>.>' ?>C#.>D' 0' +@>' A1??>?? 10' 1'' +@> .'
<0C >0+' %<0D?' #0D>.'+@> .' 1J0' %< J '

@#?' +@>' ?+.10=' A1?+?!' J@ C@' B<E' $>' .>=<.D>D' <?'
+@>' >K+>. 1.' D>'>0C>?' 1'' +@>' C +E' 1'' .<0<D<!' J>.>'
?#CC>?? ,>%E' C<.. >D' ' '>J' A1?+10?' <%10>' .>P
B<0>D' 1'' ?#'' C >0+' ?+.>0=+@' +1' H>>A' +@>' >0>BE' <+'
$<E' @>' B1?+' C10?D>.<$%>' 1'' +@>?>' J<?' <%<=<!'
J@C@' '.1B' +?' B<.+B>' ?+#<+10' <''1.D>D' '<C%+>?

Q' 1)'' A '%(A, . 1) ']' 1%5G' !'(!' FF.J'
N%'%' $3, 5' %)5' 4%' A' $'%' *),(%'(!'F .,,,!J >'
* $)' 5' *%4%',)'%'),'A'%; 4,), ' !': !'A' 5!' '
%(@'$3)' (,)'%)5'B '),'A' , !' (!'„' ,4!',,,!'(!'.!'.,,!<' ,4!'
%,% 5')' A%') 4 1%)'A,' ,.!'(!',,!',,,!J %1 ' ,4!',!'(!'
(%3$' 0' A' , A' @,)'' F,,!
45% %A!J $'%'(!'F .,,,!

'1.' <' C1B B#0 C<+ 10' J +@' +@>' <.$<.E' 11.?!' +@<+' +@>' , = %<0C>' 1'' +@>' <?+ % <0' C.# ?>.?' C1#%D' 01+' >0P + .>%E' 0+>.C>A+' 0' +@ ?' A1 0+!' +@>.>'1.>!' +' J<?' D>+>.B 0>D' +1' C10C>0+.<+>' <%%' +@>' ?+.>0=+@' 1'' +@>' B10<.C@E!' $E' ?><' <0D' %<0D!' 0' +@>' >0?# 0=' C<BA< =0' 1'' 649

B ' 0' A ' 1 ' ,13 %) ' %$ A , , ' 0 ' A ' B% ' 0' : %) %5% % ')%)5 ' 5 ' $ '% ' %)5')), ' 5 ' A ,+% ' ' A ,) ' % ' A ' , ' (% 5 ' 0 1' A ' % ,)' 4 , %!

>J' A<.+ C#%<.?' @<,>' $>>0' A.>?>. ,>D' .>?A>C+ 0=' +@>' $ 1=.<A@E' 1'' +@>' '1.B>.' >' J<?' A.1$<$%E' < 0<+ ,>' 1'' 5#%=<.!' 0><.' 1%>D1' @>' <?+ % <0' J . +>.?' .>C1=0 ?>' C>.+< 0' A.1, 0C <% ?B?' 0' @ ?' ?+E%>' $>%10= 0=' +1' +@<+' D ?+. C+' >' J<?' ?>C.>+<.E' +1' >0.E' !' <0D' J<?' C@<.=>D' J +@' ,<. 1#?' C10' D>0+ <%' '+BC+ 10?' $E' @ B ' >'?>>B?' +1' @<,>' .>++#0>D' @ ?' A%<C>' 10' +@>' <CC>?? 10' 1'' ?<$>%%<!' $E' J@1B' @>' J<?' <AA1 0+>D' 0<+ 10<% @ ?+1. 1=.<A@>.' 0' 647!' J@>0!' '.1B' C>.+BO' .>B<.H?' 0' @ ?' %>++>.?!' +' J1#%D' <AA><.' @>' J<?' <%.><DE' <DP ,<0C>D' 0' E><.?

A, ' 00,(' ,)' A ' 0,0) A' ( ) $ C ' (13 A)5 5' ,)' %500, ,)' ' A ' 1 ' 4., $ ' 5$, ' 0' %)' A, ,%) ' A ' ,) ,1% ' %)5' ( )0,; 5) ,% ' % ,) ' 0' %' 3 , .% ' (% C!' Y' ' B% ' A ' 4$,) ' 0' A ' (A),([' %C ' 1% 5 G' Y' ' (% C')' 0 ,')' (3)5;)(' ,)' A ' .,(' 0' A, ' 1% ' %(2$%,) ,)'' A, 1 0' B, A' BA% ; . ' B% ' 3% ,)'' ,)' A ' ($ ' %)5' ($) , <' %)5 ' 4C' A ' 5, (' %)5' ( )(, ,% C') ' 0' A, ' 3, ' ' % %C' $(A' 0 $5 ' % ' 1, 'A ' % , ' 4 B)' A ' @,)'' %)5' A, ') 4, , C ' %)5' %4 , A' A% 1)C' 4 ; B)' A 1![' 1' A, ' 3 , 5' $ '% ' 1%,) 5') % ' A ' C% ' 3)' %((13%)C,)'' A ' 2$)' ,)' A ' .% , $ ' 3 ' ' A $'A' A ' @,)'5 1 ' % ' B ' % ' ,)' A ' 1, , % C' F3 5, ,)' ,) ' A ' ; , A' , C!' 8 ' B% ' ( ) 2$) C' %)' C >B,) ' 0' 1%)C' 0' A ' B% ,@ ' ( ) ' BA,(A' A ' 5 (,4 '+' %)5 ' 0 1' A, ' , $% ,)' % ' A

($ ' A%5' %((' ' A ' 1 ' %13 ' %)5' %((5, 5' $0 ' 0',); 0 1%,)! ', ' 3 4%4 ' A ' 5,5') ' $.,. ' A ' (%3 $ ' 0' : %')%5%' % ' A, ' A, C' 0% ' 1 BA%' A ' 0' A%' .) !

5#%=<. ? C@.10 C%>! 0' +@' A1.+ 10' C10+< 0 0=' < .>+.1?A>C+ ,' ?#.P ,>E' 1">,>0+? A.>, 1#? +1' 647! B<E' $' C@<.=>D' J +@' =.1?? 0<CC#P .<CE'L' $#' 0' <%% +@' ?#$?>F#>0' A>. 1D! +' B<E' $' .>C> ,>D' <? A>.P '>C+%E' <#+@>0+ C! <0D' @<? < ' +@' < .'1" BA<.+ <% +E' ,>.E' C .CB#% ?+<0C' .>%<+ 0=' +1' +@' C10D#C' 1" +@' J<.' ? D>,>%1A>D' J +@' >F#<% '#%O>?? <0D' A.>C ? 10' ? B<00>.' 1" 0<..<+ 10! +@1#=@ A.1%K! ? A>.?A C#1#?! <0D' B<E' C1BA<.' '<,1#.<$%E' J +@' +@<' 1" C10+>BP A1.<.E' J . +>.?' ? ?>0+ B>0+? B<E' C1BA<.' ?+ %% B1.' <D,<0P +<=>1#?%E' 0' A1 0' 1" % $>.<% +E' J +@' +@1?' 1" +@' <?+ % <0' @ ?+1P . <0? 1" < %<+>.' <=>

0$ '% ' 0' 1 ' A ' B @ ' 0' BA,(A' A, ' (1 1) % C')' A ' %)(,)' % , ' 0' ,)' ' .$ ' ' A, ' ' %)5' A, ' * % ' E%') ' ' @ (A ' 0', $, $ ' 1)' A%. ' %)' 4)' 3$4 , A 5! A ' % ' ( ) %,)') ,(' 0' A ' 1 ' 5, ,)'$, A 5' ,)5, . ,5$% ' 0' A ' ($ ' 0' 8) C' E ' BA,(A' % A $'A' ',)5, (,)$)% C')(1,; % ,(' % ' .% $%4 ' $4 ,5,% , ' ' %)' %((% $ % ' %(2$%,) %)(' B, A' A ' 3 1,))' %(' 0' A ' 3 , 5! A ' % ' %)5' 1 ' '%)' 5, ,)' 0' $ '% K' (A),(' B% ' 3$4 , A 5' % ' E%)(,% / I ' 0 1' A ' 3 ' 0'), ') 0 ',)' % ' ' 0 , !

)), ' 5 ' 4 ,+% B% ') ' 0' A ' 1 ' %(,. ' %)5' $5, ' (A ; % ' 0' A, ' 3 , 5! 8 ' B% ' 4 1' ,)' A ' 3 .,)(' 0')5% $,% ' DDD! 0 ' A ' $ $% ' 5, (,3 ,) ' % ' % %1%)(% ' A ' B)' % ' A ' %' ' 0'),))' ' % C ' BA ' A ' (13 5' A, ' 5$(% ,)' ,)' A ' $), . , C' 0' ')%! 8 ' $) 5' ' 3%,)')' C % ' %0 ' ,(A C' 5' B, A' (% ,(' %),)' ' %)5' A ' ,4 %' % ' A%' B ' A)' %$'A' ,)' A ' 0 $, A,)' ' (A ' 0' % C! 8 ' ') ' ,1 ' ,)' 5, 3) ,)' ' A, ' ($) C1)' A, ' .% , $ ' %(2$, , ,) ! 8 ' B% ' %33 ,) 5' ' A ' B ' (A%, ' 0' ' %1 1%' %)5' 3 C' P%' A,)' ' ,13 >' (5) 5X' ,)' A ' $), . , C' 0' % %1%)(% ' %)5' ($ 5' % ' A ' %1 ' ,1 ' ,)' A ' 5, ,)(' 5 3% 1) ! 8 ' B% ' $4 2$) C' 3 ; 0 5' 4C' * % 5,)% ' =,1) ' ' %' 3 0 A,3' ,)' A, ' $), . , C' 0' (% % 5 ' 8)% ' BA ' A, ' .,(' B ' ,4 % C' 2$, 5 ' %)5' BA ' A ')+ C 5' A ') , ' ( )0,5)(' 0' A, ' 5, ,) '$, A 5' 3%)' BA ' ( ) $ 5' A, 1')' % ' 1% ' %00 (,)' ' A ' ,) ' 0' A ' ,) , $,)! 8 ' A ' ( ) ,)$ 5' 5 ,. ,)' ' A, ' ($ ' %)5' F>

3 $)5,)'' A ' %)(,)' (% ,(' ' (B5 5' %$5,)(' ' A ' %5; .%)(5'%T' 0' .) C> ,'A ' BA)'A ' B%' (% , 5' 00'4C'%)' % %(@' 0'%3 3 FC!

4 ,+%' 4 ,5 ' A,' %' $, ,)' (13 5' B @')'%' ' %' .% , C' 0' $4+ (' 3A, ',(%' A, ,(%' A ',(%' \(!' 8, ' 1)5% ,)' 0' A ' %(5' F' B%' ., , 5' B, A' A ' ( ) $ ' 0' A ')2$, , ,)'%' (, ($1 %)(' BA,(A' B, ') ' 3 % ' ' A, ' 3 +$5,(' B, A' 3 , C!' 4 ,+%' B%' 0%' 0 1' 4 ,)'' (, ($1 (,4 5' 4C' A ')% B') ,1) ' 0' A, '%' !' 8 ' B%' B% 1 5' B, A' %' ') $') A$,% 1' 0 ' ' BA,(A' @,)5 5' %' (3)5,)''0%1 ' ,)' A ' 4 1 ' 0' A, '5, (,3 ' %1)'' BA 1' 1%C' 4 ' (@) 5' 1 ' 0' A ' 4 ,'A ')%1 ' ,)' A ' , % C' %))% ' 0' A '3 , 5!' 8, ' ,) $(; ,)' 00 (5'0 ' (% ,(' , % $ ' ,)' 3%,)' BA%' A ' %4 $ ' 0' A ' ' %' % ,%)' (A % ' 0' A ' 0,0) A' ( ) $ C' 5,5' 0 ' , ' ,)' A , ' ($) C' %)5' A ' B%' B% 5 5' B, A' A ' $4 %) ,%' ' % , $5 ' 0'?,, ' B)' %' ' %)5' $(A' 13 C' A) $ ' %' ($5'4 ')5 5'4C'3 , C!' ' . C' 1%)C' C % ' A ' %)),. % C' 0'A, '5 % A' B%' (11 1 ; % 5' 4C' 3$4 ,(' .,(' %)5' %' 0 1 %' 3%) 'C ,(' ,)' A ' $),. , C' 0' (% %!

A ' (, ($1 %)(' %)5,)'' A ' (13 , ,)' 0'A, ' % ,)' (, >'),(' ' 0)' 2$ 5' ,)' A, ' A, C' % ' . C' ($, $!' *% 4%+%' %C ' A% ' A ' 5 ,. 5' $ '% K' (A),(' %0 ' A% ' B , K' 5 % A' ,) ' 4 ,+%K' A%)5 ' 0 ' A ' 3$ 3 ' 0'4 ,)'' %) % 5',) ' % ,)!' A ' % ' 3 (5 5' ,3' A, ' % @' % ' 0% ' % ' A ' C % ' DI !' 8, ' A, C' A B . ' (%)' (% (C' 4 ' 1 5' %' %) % ,) ' ,)(' % A $'A' , '%@ '$3' A ' %1 ' A %5' 0',)(,5) ' , ' , '5,. ,0, 5'4C' 1%)C') B' ,5 % '%)5'3% ,($ % '0%(!' A, '$)0,), A 5'3 0 1%)(' B% '0 $)5'%1)'' 4 ,+%K' 3%3 '%0 'A, '5 (% ' B, A' %' 3 0%(' ( ) %,),)'') '%' B 5' 0'%(@) B 5'1) ' ' $ '% !' ' B% ' %(; (5,)' C' 3$4 , A 5'0 ' A '0, ' ,1 ' ,)' 6D6 ' P A ' 5, ,)' 0 5' ' ,)' A, ' A, C X' 4C' A, ')' %)(A ' %' %)' ,',)%' 3 5$(,)' 0' A, ' 0% A !' B) C' C % ' %0 ' A ' 0, ' 5, ,)' 0' $ '% K' ,',)%' (A),(' B% ' 3$4 , A 5' %' E% %5 ,5' 0 1' A ' (3C' BA,(A' 4)' 5' ' 4 ,+%' 4C' A, ' ' %)5)')), !' A, ' B @' %33 % 5' % ' %' 4 ,+%K !' * 3, ' A B . ' 0' $ '% K' (A),(' B ' 3 . 5' ,)' . %' 3 ,.% ' ,4 % , < %)5' B ' C % ' % ' 6 / ' A, '+$ ' (%,1 ' 9 ' .,)5,(% 5' 4C' %)' 5, ,)' %' % %' %' ,) (,4 5' B, A' A, ')%1 ' %' , '%$ A !

4 ,+%K 3$ % ,)A% $ %,) 5 1 ,)+$ C0 1 A, %) ; %(,) A $'A 1 $)5 . 5 C! 1 3 4%4 A% A %5 3 5 $ '% ‖ F % A 4% , 0A, B) ,))5,)' ( ); ,)$ A)% % ,. % %' % 3 , 5! 8, $)0,), A 5 1%)$ (,3 4 ,)'0 $)5 %1)'A, 3%3 %0 A, 5 % A B, A $ 0)(%)C %$ A , C B%)% $ % C) $'A ',.) A B 5 %); , CA, 3 5$(,)! , 1 %)' A% $ '% ‖ B)(A ;),($4 2$) C 3 ,) 5 % 4 ,+%K A $ 5 A%. ( ) %,) 5) % $,) , % %$ A ! A A, C % A $'A(13 5 % 0% % , ' B, A $00,(,) %4 % ,)%)5 3 13 0 C ,) A% %55) A BA 4$, A 0%1 0 4 ,+%! B% % 4 4$ %55,)' % %0 A % $)A, 4 B %)5 B% (; %,) C) B A'%'3 % ',% , 1!

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‘ ?#C@‘ 0+>. ,<%?‘ 1 ''‘ %> ?#.>‘ <?‘ 1CC#. .>D‘ <B D‘ +@> .‘ B % +<.E‘ 1A>.<+ 10?!‘ >.D 0<0D‘ <0D‘ ?<$>%%<‘ J>.>‘ D % =>0+%E‘ 1CC#A >D‘ J +@‘ +@>‘ 0+>. 1.‘ =1,>.0B>0+‘ 1''‘ +@>‘ H 0=D1BL‘ <0D‘ >?A>C <%%E‘ J +@‘ +@>‘ . = D‘ <DB 0 ?P +.<+ 10‘ 1''"#?+ C>!‘ +@>‘ B1?+‘ D '' C#%+‘ 1''‘ <%%‘ D#+ >?‘ 0‘ <0‘ BA>.'>C+%E‘ C , % G>D‘ ?+<+>‘ 1''‘ ?1C >+E‘ @>‘ F#>>0‘ '1#0D‘ >?A>C <%‘ D>B<0D‘ '1.‘ +@ ?‘ 0‘ +@>‘ 01.+@>.0‘ A.1P , 0C>?!‘ J@1?>‘ .#D>‘ 0@<$ +<0+?‘ J>.>‘ % ++%>‘ #?>D‘ +1‘ ?#$1.D 0<+ 10‘ @>‘ C1BA>%%>D‘ +@>‘ =">+‘ 01$%>?‘ +1‘ %<E‘ <? D>‘ +@> .‘ <.B?!‘ <0D‘ .>'>.‘ +@> .‘ D ?A#+>?‘ +1‘ %>=<%‘ <.$ +.<+ 10‘ @>‘ C<#?>D‘ <‘ 0#B$>.‘ 1''‘ +@>‘ '1.+.>??>?!‘ J@ C@‘ J>.>‘ ?+ %%‘ =<.. ?10>D‘ $E‘ +@>‘ $<.10 <%‘ $<0D ++ !‘ +1‘ $>‘ .<G>D‘ +1‘ +@>‘ =.1#0DL‘ <0D‘ ?@>‘ >0'1.C>D‘ +@>‘ #+B1?+‘ ?>,>. +E‘ 1''‘ +@>‘ %<J‘ <=< 0?+‘ ?#C@‘ 0'>. 1.!‘ C. B 0<%?‘ <?‘ , 1%<+>D‘ +@>‘ A#$% C‘ A><C> T

L‘ 4, %), ‘ $1‘ : !‘ A(.,,!‘ ‘ %,4,! J !‘ %,) ‘ ,>‘ T‘ 5!‘ ‘ , !‘ (!‘,,,!‘ ,4!‘,!‘ (!‘ ($ ‘ * % ‘ 1 %4 ‘ 5 ‘ >‘ =! J $ '% ‘ *),(%‘5 ‘ ‘ C ‘ 3%)% ‘ 0 !‘ /6! J N$, % ‘)% ‘ *% +(‘ ‘ ,,,!‘ (! FF.,,!‘ FFF,F! 5 ‘ %') ‘ 1!‘,.!‘ 0 !‘ DI!

,&>0‘ >CC%>? <?+ C<%‘ B B#0 + >?!‘ J@ C@‘ A.1,>D‘ ?1‘ >''>C+#<%‘ <‘ A.1+>C+ 10‘ 0‘ B1?+‘ C1#0+ >?‘ <+‘ +@ ?‘ A>. 1D!‘ J>.>‘ 01+‘ A>.B ++>D‘ +1‘ ?C.>>0‘ +@>‘ 1''>0D>.‘ ‘ .>B<.H<$%>‘ 0?+<0C>‘ +@ ?‘ 1CC#..>D‘ <+‘ +@>‘ C +E‘ 1''‘ .#K %%1!‘ 64 ‘ 0‘ 0@<$ +<0+‘ 1''‘ +@<+‘ A%<C>‘ @<D‘ $>>0‘ C1B B ++>D‘ +1‘ A. ?10‘ '1.‘ ?1B>‘ 1''>0C>‘ $E‘ 1.D>.‘ 1''‘ +@>‘ C , %‘ B<= ?+.<+>‘ >.+< 0‘ A. >?+?!‘ .>%<+ 10?‘ 1''‘ +@>‘ 1''>0D>.!‘ <%%>=>D‘ +@<+‘ @ ?‘ .>% = 1#?‘ A.1'>?? 10‘ >KP >BA+>D‘ @ B‘ '.1B‘ <%%‘ $#+‘ >CC%>? <?+ C<%‘ "#. ?D C+ 10L <0D!‘ <?‘ +@>‘ <#+@1. + >?‘ .>'#?>D‘ +1‘ D>% ,>.‘ @ B‘ #A!‘ +@>E‘ 0'%<B>D‘ +@>‘ A1A#%<C>‘ +1‘ ?#C@‘ <‘ D>=.>>!‘ $E‘ +@> .‘ .>A.>?>0+<+ 1A?‘ 1''‘ +@>‘ 0?#%+‘ 1''>.>D‘ +1‘ +@>‘ C@#.C@!‘ +@<+‘ +@>E‘ .1?>‘ 0‘ <‘ $1DE!‘ <0D!‘ '1.C 0=‘ +@>‘ A. ?10!‘ ?>+‘ <+‘ % $>.+E‘ 01+‘ 10%E‘ +@>‘ B<%>'<C+1.‘ 0‘ F#>?+ 10!‘ $#+‘ <%%‘ +@1?>‘ C10' 0>D‘ +@>.>‘ @>‘ F#>>0‘ 01‘ ?110>.‘ @><.D‘ 1''‘ +@ ?‘ 1#+.<=>‘ 10‘ +@>‘ .1E<%‘ <#P +@1. +E!‘ +@<0‘ ?@>‘ ?>0+‘ <‘ D>+<C@B>0+‘ 1''‘ @>.‘ =#<.D‘ +1‘ .#K %%1!‘ J@ C@‘ ?>C#.>D‘ +@ ‘ A>.?10?‘ 1''‘ +@>‘ A. 0C A<%‘ . 1+>.?!‘ ?1B>‘ 1''‘ J@1B‘ J>.>‘ C<A +<%%E‘ A#0 ?@>D‘ J@ %>‘ +@>‘ >CC%>? <?+ C?‘ J@1‘@<D‘ ?+ ..>D‘ #A‘ +@>‘ ?>D + 10‘ J>.>‘ $<0 ?@>D‘ +@>‘ .><%B ‘ ?<$>%%<!‘ J@ %>‘ $E‘ @>.‘ >K<BA%>‘ ?@>‘ 0C#%C<+>D‘ +@>‘ D>>A>?+‘ .>,>.>0C>‘ '1.‘ +@>‘ ?<C.>D‘ A.1'>?? 10!‘ #0 '1.B%E‘ .>? ?+>D‘ >,>.E‘ <++>BA+‘ '.1B‘ +@<+‘ F#<.+>.‘ +1‘ >0C.1<C@‘ 10‘ +@>‘ .1E<%‘ A.>.1=<+ ,>‘ @>‘ +>0D>0CE‘ 1''‘ @>.‘ <DB 0 ?+.<+ 10‘ J<?‘ D>C D>D%E!‘ <?‘ ‘ ?@<%%‘ @<,>‘ 1CC<? 10‘ B1.>‘ A<.+ C#%<.%E‘ +1‘ 01+ C>!‘ +1‘ <$. D=>‘ +@>M‘ <#+@1. +E‘ J@ C@‘ +@<+‘ $1DE‘ @<D‘ >KP >.C ?>D‘ 0‘C , %‘ B<++>.?‘ #0D>.‘ A.>C>D 0=‘ .> =0? T

L‘ $ '% ‘ *)‘ 5‘ ‘ C ‘ DI6‘ % ‘ (% % 5‘ 8)% ‘ *% ‘ (! F.,! J ‘ 3 ,))‘ F%1>‘ BA ‘ A‘ ($ ‘ B% ‘ 5 %,) 5‘ 3, ‘ 0‘ A, ‘ (($ 5‘ (14 ‘ 5$,)‘' A‘ 2$)K‘ ,) ‘ BA

1+@ 0=' 1'' 0+>.>?+' 1CC#..>D' .' +@>' '1.> =0' .>P %<+ 10?' 1'' +@>' H 0=D1B !' D#. 0=' +@>' A>. 1D' >B$.<C>D' $E' +@>' A.>C>D 0=' C@<A+>.L' >KC>A+!' A>.@<A?!' +@>' B<.. <=>' 1'' <+@<. 0>!' - 64 &!*' +@>' E1#0=' F#>>0' 1'' <,< .>!' J +@' /><0' D %$.>+!' <' T>0C@' 01$%>B<0!' J@1?>' >K+>0? ,>' @>.>D +<.E' D1B< 0?!' 0' +@>' ?1#+@P J>?+' C1.0>.' 1'' .<0C>!' %<E' <D"<C>0+' +1' @>.' H 0=P D1B ' @ ?' C100>K 10' J<?' >K+.>B>%E' D ?+<?+>'#%' +1' +@>' A<0 ?@' ?1,>.> =0?!' <0D' 0D>>D' +1' B<0E' 1'' +@>' <,<..>?>!' J@1' J>.>' D>? .1#?' 1'' +@>' <%% <0C>' J +@' <?+ %>' @ ?' J<?' #%+ B<+>%E' D>'><+>D' $E' +@>' F#>>0MB1+@>.!' <0' <.+'#%' J1B<0!' J@1' $> 0=' 1'' +@>' $%11DM.1E<%' 1'' .<0C>!' J<?' 0<+#.<%%E' D ?A1?>D' +1' <' #0 10' J +@' +@<+' H 0=D1B ' >.D 0<0D' D D' 01+' 0>=P %>C+' +1' B< 0+< 0' ?#C@' <0' #0D>.?+<0D 0=' J +@' +@>' B<%C10+>0+?' 1'' <,<..>' <?' ?@1#%D' >0<$%>' @ B' +1' C1#0+>.<C+' <0E' #0D#>' <D,<0+<=>' J@ C@' +@>' .>0C@' B10<.C@' B =@+' D>. ,>' '.1B' +@>' A1??>?? 10' 1'' +@ ?' H>E!' <?' +' J>.>!' +1' +@>' <?+ % <0' +>.. +1.E T

0' .<=10!' +J1' C .C#B ?+<0C>?&%11H' A%<C>!' 0' +@>' A>. 1D' #0D>.' .>, >J!' D>?>., 0=' @ ?+1. C<%' 01+ C>

A ' '%. '4, A' 'A 'C $)' ' 5,(,)' . ' . C' A ',)' A ' (A, 5' %*%% ,)%'%0 B% 5 ' @,)'5 1' ($% ' ' ((,% ,; ' (4 % 5',)')' , A' A, C' (%! , '%,0%, ' B% '$,1% C' % ' *% A% ,) ' 0' %')!' ' (; 0 5' ' A ' % 4, % ,)' 0' , ,)' @' 3%(' ,)' A, ' (, C' (%,)' %) 5'1) ')%1 5'( ); 4 B)' A ' C% '+$5' ' %)5' + ,) C' 4C' A ' %5. ' 3% , !' A ' 0' A ' (A4, A 3' 0' ; , 'B% ') ' A)' 5)),) 5' 5 ' ' BA ' 5, (' , ' 4 ; A B . K' $ '% ' A% ') ' (5')' 5!' A ' % ' $ C' ' %(2$%,) ' $ ' B, A' A ' %B% 5!' 1%,) %,) 5' A ' 3) ,) ' 0' *),(% ' (! ,,,!' J ' :%,)5 G' 5 ' A ' (A$ (A!' A ' 2$)' B, A' *% 4%+% ')% ' !%) ' I6! 2$% ' 3 ,)%(, C' % 5' A ' Q') ')% ' 5 ' %>' $3 1%(C' 0' A ' C% ' +,$K, > .%, % ' 1!' .!' ,4!' FFF.!' (!,,!

'

@>' ' .?' .>%<+>?' +1' <0' 1.D>.' 1'' +@>' <+<%<0' A><P ?<0+.E!' D>01B 0<+>D' ,<??<%?' ' % ' @>?>' A>.?10?' J>.>' ?#$">C+>D' +1' <' '>#D<%' $10D<=>' J@ C@' @<D' +?' 10= 0' 0' ,>.E' .>B1+>' <=>?!' $#+' J@ C@' @<D' $>C1B>' 0' 01' D>=.>>' B + =<+>D!' J@ %>' +@>' A><?<0+.E' 1'' >,>.E' 1+@>.' A<.+' 1'' #.1A>' @<D' $>>0' =.<D#<%%E' . ? 0=' +1' +@>' .<0H' 1'' '.>>B>0 ' @>' =. >,1#?' 0<+#.>' 1'' +@>' BA1? + 10?' @<D' %>D' +1' .>A><+>D' .>$>%% 10?' 0' A.>C>D 0=' .> =0?' 64 ' +' %>0=+@!' >.D 0<0D!' <'+>.' B<0E' '.# +%>??' <++>BA+?' <+' <' B>D <+ 10' $>+J>>0' +@>?>' #0'1.+#0<+>' A>1A%>' <0D' +@> .' <..1=<0+' B<?+>.?!%' A.>,< %>D' 10' +@>' %<++>.!' .<+@>.' $E' '1.C>' 1'' <#+@1. +E' +@<0' %' <.=#B>0+!' +1' .>% 0F# ?@' +@>' >K+.<1.D 0<.E' ?> =01. <%' . =@+?' J@ C@' +@>E' @<D' @ +@>.+1' >0"1E>D!' 0' C10? D>.<+ 10' 1'' <' ?+ A#%<+>D' <00#<%' A<EB>0+' '.1B' +@> .' ,<??<%? T

@>' 1+@>.' C .C#B?+<0C>' J1.+@E' 1'' .>C1.D!' $#+' 01+' 0' % H>' B<00>.' C.>D +<$%>' +1' +@>' C@<.<C+>.' 1'' +@>' ?1,>.> =0!' ?' +@>' 0+.1D#C+ 10' 1'' +@>' B1D>.0' 0P F# ? + 10' 0+1' .<=10 ' @>' <0C >0+' +. $#0<%' @<D' >K ?+>D' +@>.>!' <?' <%.><DE' ?+<+>D!' ? 0C>' +@>' B DD%>' 1'' +@>' +@ .+>>0+@' C>0+#.E!' $#+' ?>>B?' +1' @<,>' %1?+' <%%' +?' ,>01B' 0' +@>' <+B1?A@>.>' 1''+@<+' '.>>' C1#0+.E!' ?C<.C>%E' <??#B 0=' <' "#. ?D C+ 10' $>E10D' +@<+' 1'' <0' 1.D 0<.E' >CC%>? <?+ C<%' C1#.+' 1' ?110>.!' @1J>,>.!' J<?' +@>' 0?+ +#+ 10' 1.=<0 G>D' 10' +?' 0>J' $<? ?' 0' <?+ %>!' +@<0' >.D 0<0D' .>?1%,>D' 10' +?' 0+.1D#C+ 10' 0' <'? B %<.' '1.B' 0' @ ?' 1J0' D1B 0 10?

L' N$,%')% '5' %')' 8, '5' 3%0,%' ,4!' FF.!' (!' 1!' ,.!' (!' 8,!' F.,,! J % ,%)%' .,,,!

><?#.>?' J>.>' <CC1.D 0='E' +<H>0' +1' +@<+' >''>C+' 0' <' B>>+ 0=' 1'' <' A. ,E' C1#0C '' C10,>0>D' $E' +@>' H 0=' <+' <..<=10<!' D#. 0=' +@>' ?>?? 10' 1'' +@>' C1.+>?' 0' +@<+' A%<C>!' 0' A. '' 646L' <0D' <' .1E<'' 1.D>.' J<?' ??#>D!' .>F# . 0=' <%%' +@>' C10?+ +#+>D' <#+@1. + >?' +@.1#=@1#+' +@>' H 0=D1B' +1' ?#AA1.+' +@>' 0>J' +. $#0<'' 0' +@>' >K>.C ?>' 1'' +?' '#0C+ 10?' ' 1B 0 C<0' B10H' .<E' <?A<.D' /#=%<.!' <0D' 5>D.1' .$#>?' D>' A %<!' <' C<010' 1'' +@>' B>+.1A1% +<0' C@#.C@!' J>.>' <AA1 0+>D' $E' +@>' =>0>.<%!' 1.F#>B<D<!' 0F# ? +1.?' 1,>.' +@>' D 1C>?>' 1'' <.<=1??<L' <0D' 0' +@>' B10+@' 1'' >A+>B$>.' '1%%1JMM' 0=!' +@>' C@ >'' "#?+ C <.E' <0D' +@>' 1+@>.' =.><+' 1'' C>.?' 1''+@>' .><%B' +11H' +@>' A.>?C. $>D' 1<+@? T

@>' 0>J' 0?+ +#+ 10!' 1AA1?>D' +1' +@>' D><?' 1'' 0D>A>0D>0C>' C1BB10' +1' <%%' +@>' .<=10>?>!' J<?' A<.+ C#%<.%E' 1''>0? ,>' +1' +@>' @ =@>.' 1.D>.?L' B<0E' 1'' J@1?>' B>B$>.?!' 0C%#D 0=' A>.?10?' ' %% 0=' +@>' B1?+' C10? D>.<$%>' 1'' C <'' ?+<+ 10?!' J>.>' 1'' />J ?@' D>?C>0+!' <0D' 1'' C1#.?>' A.>C ?>%E' +@>' C%<??' >KA1?>D' +1' +@>

Q L') ' 8, ' 5 ' K)2$ >' , ,)' 5 3%') ' 1!' ,!' (!' .,!' % !' ,,! J N$, %')% ' 5 ' %; ')' ,4!' ==!' (!' F.! ' A, ' (' ( ).) 5' %' % %)%' 5,)%)5' %)5' %; 4 %' F3 ,)(5' %)' ,) %)(' 0' A ' A%$'A C' 3, , ' 0' A , ' *%; % %)' $4+ (' BA ' 0$ 5' ' %)5 ' % ' ,)'', ' ' 4 ' %' ., ; % ,)' 0' A , ' ,4 , ' ' 4 ' $1 1) 5' ' %' 3 %(' B, A $' A ' ,1, ' 0' A , ' 3 ,)(,3% , C!' A ' E%)(,%) ' % ' 3 5' A%' A , ' %)5%)(' A $ 5') 3 % ' % ' %' 3 (5)' ' A , ' 3 +$5,(!' ' B%' $ $%' ' ( ); .) ' %' ( ) % ' ' ') % ' (' % ' %'%' ')G)' ' 1 ' B)' BA,(A' A ' *% % %) ' BA ' B ' 3 ($,% C' + % $ ' 0' A , ' 3 ,., ' ' (%,1 5' ' 4 ' B, A,)' A , ' , C!' ' B% ' , ' 1 ' $ $%' ' A 5' 3% % ' (' 0' A ' A ' @,)'5 1 ' ,; 1$ %) $ C' ,)' $(A' ( ) ,'$ $' 3 %(' ,)' %(A' % ' B $ 5 3 1, ' A ' C% ' 3)(' ,)' % ' 5$,)'' A , ' ,)!' ' %)(% ' >' 5 ' 5 ' (5 ')' * ' (!' ,.!

:'

?C.#+ OE 1'' +@> OF# ? + 10 +@1#+ D '' C#%+E!
+@>.>'1.>!! +@> C1.+>?' J<?' A>.?#<D>D' O' +@>' '1%%1 J O='
E><.' +1' ?>OD' <' D>A#+<+ 10' +1' +@>' C1#.+' 1'' 1B >!' <OD'
<O1+@>.' +1' >.D O<OD!' .>A.>?>O+ O=' +@>' .>A#=O<OC>'
1'' +@>' O>J' +. $#O<%' +1' +@>' % $>.+ >?' 1'' +@>' O<+ 10!' <?'
J>%%' <?' +1' +@> .' ?>++%>D' 1A O 10?' <OD' @<$ +?L' <OD'
A.<E O=' +@<+' +?' A>.<+ 10' B =@+' $>' ?#?A>OD>D' '1.'
+@>' A.>?>O+!' ?1' '<.' <+' %><?+' <?' .>=<.D>D' +@>' C1O' ?C<P
+ 10' 1'' A.1A>.+E!' J@ C@' +' . =@+%E' .>=<.D>D' <?' +@>'
B1, O=' A1J>.' 1''+@>' J@1%>' +>.. $%>' B<C@ O>.E T

1+@' +@>' A1A>' <OD' +@>' + O=!' <?' B<E' $>' B<= O>D!'
+#.O>D' <' D><'' ><.' +1' +@>?>' .>B1O?+.<OC>?M' O' +@>'
B><O J@ %>' +@>' OF# ? + 10' C1B B>OC>D' 1A>.<+ 10?!'
<OD' <#+1?MD<M'D' J>.>' C>%>$.<+>D' <+' <.<=1??<!' J +@'
<%%' +@> .' #?#<%' @1..1.?!' O' +@>' B10+@?' 1'' <E' <OD'
/#O>!' 648' @>' D ?C1O+>O+>D' .<=1O>?>!' D>?A< .P
O=' 1'' .>D.>??' O' <OE' .>=#%<.' J<E!' .>?1%,>D' +1' OP
+ B D<+>' +@> .' 1AA.>??1.?' $E' ?1B>' <AA<%% O=' <C+' 1''
, 1%>OC>' @>E' '1. B>D' <' C1O?A .<CE' '1.' +@>' <??<?? P
O<+ 1O' 1'' .$#>?!' +@>' B1?+' 1D 1#?' 1'' +@>' OF# ? +1.?'
>?+<$% ?@>D' 1,>.' +@>' D 1C>?>' 1'' <.<=1??<' @>' C1OP
?A .<CE!' ?>+&' 1O' '11+' $E' ?1B>' 1''+@>' A. OC A<%' 01$ % +E!'
J<?' >O+>.>D' O+1' $E' B1?+' 1''+@>' O>J' @. ?+ <O?!' 1'

L' C')' O' A' % ,(' ,)' 4 .%)(,%' 5' %')' O !'
A' ,., ',$1' :) % ' A' !X' A') ' O' A, ' (%$ '
1%')%' (A% %' O' %')' , ' , ' P% A $'A' A' 1' 9" & '
5 (% 5' Y'#$' $ 1) '),',)>' 1$ ') ' 4' ( )0 $)5 5' B, A'
2$, ,(,)4) ' ,%)')' %')' A')%1 ' O' A' 1 5 1',) , $;
(1' ,%)' ( ) %' $ ' ' 2$%' ,)X' B%' $00,(,) C' 3 (, '
5,G' 2$' % '$)%' 3 2$, %') ') ' 1, 'A' A%. ' A $'A' ' ;
A%$ 1 ' ' ( ) %' '3 ,., ', ' ($ ' A' %') ' 0 1' A'
') % ' ' 2$%' ., 5%2$' ,)2$,' 0%)'' O' A, ' ,4 ' ,4$)% T
,(,)' ' ,% 0 C %![' P $ ' C

A>.?10?' 1'' />J ?@' >K+.<C+ 10!' 0' +@>' D ?+. C+' '
?#.<' 1'' ! ' .><%?' J<?' ?#$?C. $>D' +1' D>'.<E' +@>'
0>C>??<.E' >KA>0?>?' '1.' +@>' >K>C#+ 10' 1''+@> .' A.1">C+'
@ ?' J<?' 01+' ><?E!' @1J>,>.L' ? 0C>' .$#>?!' C10?C 1#?'
1''+@>' A1A#%<.' 1D #B' +@<+' @>' @<D' 0C#..>D!' A.1+>C+>D'
@ ?' A>.?10' $E' J><. 0=' #0D>.'@ ?' B10<?+ C' .1$>?' <' ?# +'
1'' B< %!' C1BA%>+>' >,>0' +1' +@>' @>%B>+' $>0><+@' @ ?'
@11D' +@' ? B %<.' , = %<0C>!' @>' D>'>0D>D!' <%?1!'
>,>.E' <,>0#>' +1' @ ?' ?%>>A 0=' <A<.+B>0+ T

+' %>0=+@!' @1J>,>.!' +@>' C10?A .<+1.?' '1#0D' <0'
1AA1.+#0 +E' 1'' ?#.A. ? 0=' @ B' J@ %>' <+' @ ?' D>,1+ 10?'
.$#>?' J<?' 10' @ ?' H0>>?' $>'1.>' +@>' =.><+' <%+<.' 1''
+@>' C<+@>D.<%!' 0><.' B D0 =@+!' J@>0' @ ?' >0>B >?!' J@1'
@<D' >0+>.>D' +@>' C@#.C@' 0' +J1' ?>A<.<+>' $1D >?!' ?#DP
D>0%E' ?#..1#0D>D' @ BL' <0D' 10>' 1'' +@>B' J1#0D>D'
@ B' 0' +@>' <.B' J +@' <' D<==>.!' J@ %>' <01+@>.' D><%+'
@ B' <' '<+<%' $%1J' 0' +@>' $<CH' 1'' @ ?' 0>CH' @>'
A. >?+?!' J@1' J>.>' A.>A<. 0=' +1' C>%>$.<+>' B<+ 0?' 0'
+@>' C@1 .' 1'' +@>' C@#.C@!' @<?+>0>D' +1' +@ >' ?A1+L' $#+'
01+' $>'1.>' +@>' <??<?? 0?' @<D' >''>C+>D' +@> .' >?C<A>'
@>E' +.<0?A1.+>D' +@>' $%>>D 0=' $1DE' 1''+@>' 0F# ? +1.'
+1' @ ?' <A<.+B>0+!' J@>.>' @>' ?#., ,>D' 10%E' +J1' D<E?!'
'$%>?? 0=' +@>' 1.D' +@<+' @>' @<D' $>>0' A>.B ++>D' +1' ?><%'
?1' =11D' <' C<#?>' J +@' @ ?' $%11D' @>' J@1%>' ?C>0>'
J %%' .><D %E' .>B 0D' +@>' 0=% ?@' .><D>.' 1'' +@>' <?P
?<?? 0<+ 10' 1'' @1B<?' >CH>+ '

L') ' 8, ' 5 ')2T$,' .=' >+' 5.1=.>?' <0C+' 0F# M
, ,)' (!' .,!' % !' ,,!' ,,,! ?+10?!' AA' 47!' 4 O >.M
0') ')2$, ,)' 5K >' .>.<?' ?+'D ?A<=0>!' +1B', !'
3%') ' $4,' $3 %! J % %1 ' AA' 9!' 4

@>' >,>0+' D D' 01+' C1..>?A10D' J +@' +@>' >KA>C+<P + 10?' 1'' +@>' C10?A .<+1.?M >C+<. <0'"><%1#?E' A.1,>D' ?+.10=>.' +@<0' @<+.>D' 1''+@>' 0F# ? + 10' @>' A1A#P %<C>!' =01.<0+' 1''+@>' >K+>0+' 1.' #%+ B<+>' 1$">C+' 1''+@>' C10?A .<CE!' J>.>' ' %%>D' J +@' ,<=#>' <AA.>@>0? 10?' 1'' <0' 0?#..>C+ 10' 1'' +@>' 0>J' @. ?+ <0?!' J@1' @<D' ?1' 1'+>0' $>>0' +@>' 1$">C+?' 1'' 1#+.<=>L' <0D' +@>E' C1#%D' 10%E' $>' <AA><?>D' $E' +@>' .C@$?@1A' 1'' <.<=1??<!' . D 0=' +@.1#=@' +@>' ?+.>>+?' <0D' A.1C%< B 0=' +@<+' 01' + B>' ?@1#%D' $>' %1?+' 0' D>+>C+ 0=' <0D' A#0 ?@ 0=' +@>' <??<?? 0?

@ ?' A.1B ?>' J<?' <$#0D<0+%E' '#%' %%>DL' <0D' J D>' J<?' +@>' .# 0' 1CC<? 10>D' $E' +@>' 0D>'<+ =<$%>' G><%' J +@' J@ C@' +@>' $%11D@1#0D?&1'' +@>'+. $#0<%' '1%%1J>D' #A' +@>' ?C>0+' 0' +@>' C1#.?>' 1''+@ ?' A>.?>C#+ 10!' +J1' @#0D.>D' 0D , D#<%?' A>. ?@>D' <+' +@>' ?+<H>!' <0D' <' ?+ %%' =.><+>.' 0#B$>.' 0' +@>' D#0=>10?' 1'' +@>' 0F# ? + 10L' <0D' +@>.>' J<?' ?C<.C>%E' <' 01$%>' '<B %E' 0' .<=10' $#+' J +0>??>D' 10>' 1.' B1.>' 1'' +?' B>B$>.?' C10D>B0>D' +1' @#B % <+ 0=' A>0<0C>' 0' +@>' <#+1?MD<M' ' @>' BP B>D <+>' A>.A>+.<+1.?' 1'' +@>' B#.D>.' J> >' <%%' @<0=>D' <'+>.' ?#''>. 0=' +@>' <BA#+<+ 10' 1'' +@> .' . =@+' @<0D?' 0>!' J@1' @<D' <AA><.>D' <?' >, D>0C>' <=< 0?+' +@>' .>?+!' #0D>.' <??#.<0C>' 1''A<.D10!' @<D' @ ?' ?>0+>0C>' ?1' '<.' C1BB#+>D!' +@<+' @ ?' @<0D' J<?' 01+' C#+' 1''+ %%' <'+>.' @>' @<D' $>>0' @<0=>D' +' J<?' +@#?' +@<+' +@>' @1%E' 1'' C>' 0+>.A.>+>D' +?' A.1B ?>?' 1''=.<C> T

L') ')2!' 5K 3%') ' 5, $' ,13,)1)' B ' ( ); 1!' ,!' (!' .,!' % !' .!J %)(% ' 5 1) 5' ' 5' 3)%)(' ,)' %)' * 1 1)!' %'!' !' 3!' !' %$ >5%>0 ' B%' %') 3A B' 0' 1)'' A ' BA' %0 ' %' ; '',)'' 5,)%)5')'?%1 ' 0

.$#>?' .>C> ,>D' <%%' +@>' @101#.?' 1''<' B<.+E.' ?' <?@>?' J>.>' 0+>..>D' 10' +@>' ?A1+' J@>.>' @>' @<D' $>>0' <??<?? 0<+>D T' ' ?#A>.$' B<#?1%>#B' J<?' >.>C+>D' 1,>.'+@>B!' <0D' $>0><+@' @ ?' >' =E' <' $<?M.>% >'' J<?' ?C#%A+#.>D!' .>A.>?>0+ 0='<' @ ?' +.<= C<%' D><+@!' J +@' <0' 0?C. A+ 10' C10+< 0 0='<' ?# +<$%>' D>0#0C <+ 10' 1'' +@>' .<C>' 1'' ?.<>%' <0D' <+' %>0=+@!' J@>0' +@>' %<A?>' 1'' 0><.%E' +J1' C>0+#. >?' @<D' ?#AA% >D' +@>' .>F# ? +>' <B1#0+' 1'' B .<C%>?!' +@>' A<0 ?@' 0F# ? + 10' @<D' +@>' =%1.E' 1'' <DD 0='<' 0>J' ?< 0+' +1' +@>' C<%>0D<.!' $E' +@>' C<010 G<+ 10' 1'' +@>' B<.+E.' #0D>.' 51A>' %>K<0D>.' ' 0' 6!'

@>' '< %#.>' 1'' +@>' <++>BA+' +1' ?@<H>' 1''' +@>' +. P $#0<%' ?>.,>D' 10%E!' <?' #?#<%' 0' ?#C@' C<?>?!' +1' >?+<$P % ?@' +' B1.>' '.B%E' +@<0' $>'1.>' ''1.+?' <+'.>? ?+<0C>' J>.>' ?#$?>F#>0+%E!' $#+' 0>''>C+#<%%E!' B<D>' 0' 1+@>.' A<.+?' 1'' .<=10!' <0D' 0' <%>0C <' <0D' <+<%10 <' +' J<?' 01+' >?+<$% ?@>D' 0' +@>' %<++>.' A.1, 0C>' + %%' 649L

%.% !' %,%)%' B, ,)'' ' BA,(A' A%5' 4)' (%'$% 5')' 3 ,)' A' % ' B, A' %' $, %4 ' A' 3%. 1)' 1 @ 5' $3' %)5' 1 % ',)0 1'$' A% '% A $'A' 4 , 5'B, A' 1 ' 1, %($ $'0 ;))' 0' A' ( ) 3, % ' B ' . $'-' ,'!' %)(!')P,!' 3!' . ' 4 $'A' ' ,% ' A C' % ' II ! 3 , A 5' 1, %4 C' B, A,)'%'C % ' ' % %1 ' ' ,'!' ' '!' ,)' 5,00)' B%C '4C' A' +$5'; %)(!')2$, ,!' 3!' I !J >' 1)' 0' : 5!' P8, '5' 3%8%') !' 8, '5' K)2$, , ,)'(!' 1!',,!' 3!' I!X')0 $)% ; .,!' % !',C! C' 0 ' A' 00 (' 0' A, ' 1 % ' %)(' %)5' % C' % ' %(;) 'BA' ( ) $ 5' A' ,> (5,)'' ') '($ 5' %(A ',)%' 3 ('1$ '4' (,. 5' 4 % '%' %,)' ,)2$, , !' A ,' % ' A' 4 '%$ A , C' 0' A') B)' A B . ' A%' 4)' B ! (,3 5' 4C' A' $3 , ' 3)> Q' ((5,)'' ' % %1 'BA)' 5 $ ' 0' A , '' %' 1% ' !' A' (3 ' 0' A ',)2$, , 'B%' 1,),(< J' 4 $'A' ' A' 3%('BA ' A' Y' , ',)( ))$' 5K$)' ;' ' >' A%5' 4)'% % ,)% 5' A' 4 5' , $F' 3 !Z

□□ I ‘ ‘

<0D‘ ?1B>‘ E><.?‘ %<+>.‘ 0‘ C %E!‘ <.D 0 <!‘ <0D‘ +@>‘ <%><. C‘ ?%>?‘ @#?!‘ >.D 0<0D‘ @<D‘ +@>‘ B>%<0C@1%E‘ ?<+ ?'<C+ 10‘ 1'‘ . ,>+ 0=‘ +@>‘ B1?+‘ =<%% 0=‘ E1H>‘ >,>.‘ D>, ?>D‘ $E‘ '<0<+ C ?B!‘ .1#0D‘ +@>‘ 0>CH?‘ 1'‘ <‘ A>1A%>‘ J@1!‘ + %%‘ +@<+‘ A>. 1D!‘ @<D‘ >0"1E>D‘ A.1$<$%E‘ +@>‘ =.><+P >?+‘UD>=.>>‘ 1'‘C10?+ +#+ 10<%‘ '.>>D1B‘ J@ C@‘ +@>‘ J1.%D‘ @<D‘ J +0>??>D

5 ‘ ;

‘ ‘ ‘O‘ ‘ ‘ V

>>>> : ‘ ‘ * # ‘ ‘ : !

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‘ C1B B>0C 0=‘1A>.<+ 10?‘ <=< 0?+‘ <%<=<!‘ +‘ J<?‘+@1#=@+‘ >KA>D >0+‘ $E‘ +@>‘ A<0 ?@‘ C1#0C %‘1’‘ J<,‘ +1‘ 1$+< 0‘ A1??>?? 10‘ 1’‘ >%>G‘ <%<=<!‘ ? +#<+>D‘ <$1#+‘ ' ,>‘ %><=#>?‘ D ?+<0+‘ '.1B‘ +@>‘ '1.B>.‘ @ ?‘ ?+.10=‘ +1 J 0‘ ?+11D‘ <%10=‘ +@>‘ ?1#+@>.0‘ >K+.>B +E‘ 1’‘ <‘ .<0=>‘ 1’‘ B1#0+< 0?‘ +@<+‘ >K+>0D‘ +1‘ .<0<D<‘ +?‘ A1? + 10‘ <''1.D>D‘ <0‘ ><?E‘ C1B B#0 C<+ 10‘ J +@‘ +@<+‘ C<A +<%!‘ <0D‘ 1$, 1#?‘ B><0?‘ 1’‘ <001E<0C>‘ +1‘ <0‘ >0>B E‘ 0+>.P A1?>D‘ $>+J>>0‘ +?>%’‘ <0D‘ +@>‘ <D"<C>0+‘ C +E‘ 1’‘ <%<=<‘ @>‘ .>D#C+ 10‘ 1’‘ +@ ?‘ A%<C>‘ +@>.>'1.>‘ $>C<B>‘ +@>‘ ' .?+‘ 1$">C+‘ 1’‘ +@>‘ C<BA< =0

@>‘ '1.C>?‘ <??>B$%>D‘ <+‘ 1.D1,<!‘ C10? ?+ 0=‘ 1’‘ +@>‘ %>, >?‘ 1’‘ +@>‘ 0D<%#? <0‘ C + >?‘ A. 0C A<%%E!‘ 1’‘ +@>‘ .>P +< 0>.?‘ 1’‘ +@>‘ =.><+‘ 01$ % +E!‘ <0D‘ +@>‘ J>%%M<AA1 0+>D‘ C@ ,<%.E‘ J @ C@‘ +@.10=>D‘ '.1B‘ <%%‘ F#<.+>.?‘ 1’‘ +@>‘ H 0=P D1B!‘ <B 1#0+>D‘ 10‘ +@ ?‘ 1CC<? 10‘ +1‘ 7! ‘ @1.?>‘ <0D‘ 6 ! ‘ '11+Ł‘ <‘ 0#B$>.‘ J @ C@‘ ?#'' C >0+%E‘ <++>?+?‘ +@>‘ #0?%<CH>0>D‘ <.D1#.‘ 1’‘ +@>‘ 0<+ 10‘ 0‘ +@>‘ A.1?>C#+ 10‘ 1’‘ +@>‘ J<.‘ 0‘ +% ‘ 9+@‘ 1’‘ A. %!‘ - 649!*‘ S 0=‘ >.M

:

D 0<0D!' A#++ 0='@ B ?>%'' <+' +@>' @><D' 1'' +@ ?' '1. B D<$%>'
@1?+!' F# ++>D' +@>' '< .' C +E' 1'' 1.D1,<' <B D' +@>' C@>>.P
0=' <CC%<B<+ 10?' 1'' +?' 0@<$ +<0+?!' <%+@1#=@' +@>?>'
J>.>' ?1B>J@<+' D<BA>D' $E' +@>' 1B 01#?' 1CC#..>0C>'
1'' <0' ><.+@F#<H>' J@ C@' D>B1% ?@>D' <' A<.+' 1'' +@>'
.1E<%' .>? D>0C>!' <B10='1+@>.'>D ' C>?!' D#. 0=' +@>' A.>P
C>D 0='0 =@+' @>' .1#+>'<'+>.'+.<,>.? 0='+@>' >=#<?!'
<0D' +@>' 1%D' +1J0' 1'' 0+>F#>.<!' ?+.#CH' 0+1' <' J %D'
@ %%E' C1#0+.E' +@<+' ?+.>+C@>?' +1J<.D?' >%>G' @>'
. ,>.?' J>.>' ?1' B#C@' ?J1%%>0' $E' >KC>?? ,>' .< 0?!' <0D'
+@>' A<??>?' ?1' .1#=@' <0D' D '' C#%+!' +@<+' +@>' <.BE' 0'
A<.+' 1'' +?' B<.C@' <D,<0C>D' 10%E' <' %><=#>' <' D<EL' <0D'
10' 10>' 1CC<? 10!' J@>0' 01' ?# +<$%>' A%<C>' 1CC#..>D' '1.'
>0C<BAB>0+' '1.' +@>' ?A<C>' 1'' ' ,>' %><=#>?!' +@>' B>0'
'< 0+>D' J +@' >K@<#?+ 10!' <0D' +@>' $><?+?' D.1AA>D' D1J0'
D><D' 0' +@>' @<.0>??' +' %>0=+@!' 10' +@>' 9+@' 1'' A. %!'
+@>' A<0 ?@' <.BE' ?<+' D1J0' $>'1.>' >%>G' <%<=<!'
J@>.>' 0' <' '>J' D<E?' +@>E' J>.>' "1 0>D' $E' +@>' % =@+>.'
!' A >C>?' 1'' +@> .' $<++>. 0=' 1.D0<0C>!' +@>' .1<D?!' 01+P
J +@?+<0D 0=' +@>' BB>0?>' %<$1#.'>KA>0D>D' 10' +@>B!'
$> 0=' '1#0D' BA.<C+ C<$%>' '1.' +@>' @><, >. T
@>' 11.?' J>.>' <J<.>' 1'' +@>' BA1.+<0C>' 1'' >%>G'
+1' +@>' ?>C#. +E' 1'' <%<=<' @>' ?>0?<+ 10' >KC +>D' 0'
.<0<D<' $E' +@>' + D 0=?' 1'' +?' D<0=>.' J<?' ?1' ?+.10=!'
+@<+' +@>' b@' C@ >'' %' V<=<%' '1#0D' +' 0>C>??<.E' +1'
B<H>' <0' >''1.+' +1' .>% >,>' +@>' $>%><=#>.>D' C +E!' 01+M

L' E 51% ') ,'!' C' : %)5 G% :%,)5 G' 5 ' *% 4%+% ')% '
5 ' E G' 0 !' DI! J %,%)%' 5 ')%)5 ' !' %) ' I/! J'
8, ' 5 ' 3%0,%' 1!' ,,!' ,4!' 5%' *),(% 5 ' ' '
==E' (! =! J $ '% ' *)' 5 ' ,4!' E' (! F,.!
' CT' *%!' !',,,!' (!' FF! J

<.B1#.' +@<0' @ ?' C# .<??!' <0D' %><A 0=' 10' @ ?' @1.?>'
C@<.=>D' $. ?H%E' 0+1' +@>' B D?+' 1'' +@>' >0>BE!' <0D'
?#CC>>D>D' 0' .<%%E 0=' @ ?' 1J0' B>0 ' 0' +@>' B D?+' 1''
+@>' .>0C10+.>!' @1J>,>.!' J@>0' @>' @<D' D ?C@<.=>D' @ ?'
%<0C>!' @>' '1#0D' @ B?>%''#0<$%>'+1' >K+. C<+>' @ ?' ?J1.D'
'.1B' +@>' ?C<$$<.D' J@ C@' @#0=' '.1B' +@>' ?<DD%>M$1J '
+' +@ ?' B1B>0+' @>' J<?' <??<#%+>D' $E' ?>,>.<% 11.?!'
<0D' B#?+' @<,>' $>>0' > +@>.' ?%< 0' 1.' +<H>0!' $#+' '1.' +@>'
+ B>%E' .>?C#>'1'' +@>' <.F# ?' 1'' <D G!' <0D' <' $.<,>'
C<,<%>.!' <.C %<??1' D>' %<' >=<!' J@1!' =<%%1A 0=' #A' +1'
+@>' ?A1+' J +@'+@> .'<++>0D<0+?!' ?#CC>>D>D' <'+>.'<' ?@<.A'
?H .B ?@' 0' $><+ 0=' 1''' +@>' >0>BE' >.D 0<0D ?'
01$%>?' .>B10?+.<+>D' J +@'@ B' 10' +@ ?' J<0+10' >KA1M.'
?#.>' 1''@ ?' A>.?10L' .>A.>?>0+ 0=' +@<+' @>' C1#%D' ?>.,A'
+@>B' B1.>' >''>C+#<%%E' J +@' @ ?' @><D' +@<0' @ ?' @<0D'
#+' @>' <0?J>.>D!' +@<+' '@>' C1#%D' 01+' ?+1A' +1' C<%C#P
%<+>' C@<0C>?!' J@>0' @ ?' ?#$">C+?' J>.>' A>. %% 0=' +@> .'
% ,>?' '1.' @ ?' ?<H>LR' <' .>A%E!' ?<E?' 5#%=<.!' J@ C@' >0P
D><.>D' @ B' +1' +@>' J@1%>' <.BET

+' %>0=+@!' +@>' 0@<$ +<0+?' 1'' >%>G!' ?>> 0=' +@>' .#0'
BA>0D 0=' '.1B' +@>' $1B$<.DB>0+' 1'' +@>' @. ?+ <0?!'
J@1?>' . =1.1#?' $%1CH<D>' $1+@' $E' ?><' <0D' %<0D' >KP
C%#D>D' <%%' @1A>?' 1'' .>% >'' '.1B' J +@1#+!' C10?>0+>D' +C'
C<A +#%<+>' 10' +@>' #?#<%' C10D + 10?' 1''?>C#. +E' +1' A>.P
?10?!' A.1A>.+E!U'<0D' .>% = 10 ' @>' C<A +#%<+ 10' 1''+@ ?

$' !' %,) ' ,($ ' * %')' (11 1 %,)' 0' A,'
,E 1!' 5 ' 3%)%' 0 !' /6!J' .) ' A ' (,C',)(3 % 5',) (
E 51% ') ,'!'C' : %)5 G%' 5 ' , ' ($(A)' A ' 0,'$ ' 0' I
E G'0 !' 6 6 !J % 1 ' @,)'')' A 4%(@,)' A ' %(' <
4 ' 5 ' ' , (' ,4!' ,!' (! 3, (,)'' %' ' B, A' A, ' +%. ;
F,.! ,)> E 51% ' 0 !' !

A%<C>! A. % 79+@! 649! J<? '1%%1J>D $E +@<+ 1' B1.> +@<0 +J>0+E A%<C>? 1' 0'>. 1. 01+> %E 0= $>P +J>>0 +<0D <%<=<L ?1 +@<+ +@> <AA.1<C@>? +1 +@ ? %<++>. C +E J>.> 01J %>'+ 1A>0 +1 +@> , C+1. 1#? A<P 0 <.D? T

@ ? <0C >0+ C +E! J@ C@! #0D>. +@> A<0 ?@ .<$? 0 +@> +J>%'+@ <0D +@ .+>>0+@ C>0+#. >?! '1. B>D +@> C<A +<% 1' <0 0D>A>0D>0+ A. 0C A<% +E! J<? ?>C10D 10%E +1 +@> B>+.1A1% ? +?>%'! 0 +@> H 0=D1B 1' .<P 0<D< +? '.# +'#% >0, .10? '#.0 ?@>D <$#0D<0+ <.P + C%>? 1' >KA1.+! J@ %> +? C1B B1D 1#? A1.+ 10 +@> >D +> <0><0 1A>0>D < +.<'' C J +@ +@> ,<. 1#? C1#0+. >? J<?@>D $E +@<+ 0%<0D ?><! <0D J +@ +@> .>B 1+>. .>= 10? 1' 0D < J 0= +1 +@>?> <D,<0P +<=>?! +@> 0@<$ +<0+? <CF# .>D #0$1#0D>D 1A#%>0C>! J@ C@ ?@1J>D +?>%' 0 +@> >B$>%% ?@B>0+? 1' +@> . C +E! J@1?>% =@+ '1. B? 1'<.C@ +>C+#.>! B 0=% 0=<'+>. +@> ><?+>.0 '<?@ 10 J +@ 1D1. '>.1#? =<.D>0? <0D '1#0+< 0? 1' ?A<.H% 0= J<+>.! A.>?>0+>D <0 <AA><.P <0C> B1?+ .>'.>?@ 0= +1 +@> ?>0?>? 0 +@ ? ?#%+.E C% B<+> '

@> C +E J<? >0C1BA<??>D $E '1.+ ' C<+ 10? 1'=.><+ ?+.>0=+@! <0D 0 A>.'>C+ .>A< . + J<? C1B B<0D>D $E < C +<D>%! C100>C+>D $E < C1,>.>D J<E J +@ <

1%5 G 8, 5 C1 'C , $00,( ) C 3 ,; $ C *% ,(! (! ,,! J)) ! P $4,) > % 1 4 ,) ,4! ,! (! F,.! (,3(,) 5 3% %'!) ! 3!] *)5 5 $4 BA A A I !X) ,(0 . ,'))%1 0 % % '% , 5 ,. 5 0 1 BA B%C 5 , (3 0 %; A : @ %=%"&X ,') ,0C,) ' %'% *% , , ,4 , A! ($ Y%' %4 [A %4,(Y % ; ,%) , 1!,,! 33! D ! 6 HH % [1 %),)' : C% ![, A %,4,!

?>C1OD‘ '1.+.>?? BA.>=0<$%>‘ '.1B‘ +?‘ A1? + 1O!‘ D>01B P
0<+>D‘ >$<%'<.1!‘ J@ C@‘ ?+11D‘ <%1O=‘ +@>‘ D>C% , + >?‘ 1'‘
+@>‘ $1%D‘ ? >..<‘ 1'‘ +@>‘ K<.F# <!‘ J@1?>‘ D>' %>?‘ @<D‘
A.1,>D‘ ?1‘ D ?<?+.1#?‘ +1‘ +@>‘ @. ?+ <O?‘ @>‘ C +E‘ %<E‘
$>+J>>0‘ +J1‘ ?A<C 1#?‘ ?#$#.$?!‘ +@>‘ 1O>‘ 1O‘ +@>‘ %<OD‘
? D>‘ $> 0=‘ <%?1‘ >OC .C%>D‘ $E‘ <‘ '1.B D<$%>‘ J<%%L‘ M<OD‘
+@>‘ 1+@>.‘ D>C% 0 0=‘ +1J<.D?‘ +@>‘ ?><!‘ ?@1J 0=‘ <0‘ >KP
A<O?>‘ 1'‘ 1% ,>!‘ 1.<O=>!‘ <OD‘ A1B>=.<O<+>‘ =<.D>O?!‘
O+>.B O=%>D‘ J +@‘ +@>‘ . C@‘ , O>E<.D?‘ +@<+‘ '#.O ?@>D‘
+@>‘ C>%>$.<+>D‘ ?+<A%>‘ '1.‘ +?‘ >KA1.+

<%<=<‘ J<?‘ J>%%‘ A.>A<.>D‘ '1.‘ <‘ ? >=>‘ $E‘ ?#AA% >?‘
1'‘<.+ %%>.E‘ <OD‘ <B B#0 + 10‘ +?‘ 1.D 0<.E‘ =<.. ?1O‘ J<?‘
.> O'1.C>D‘ $E‘ ,1%#O+>>.?‘ '.1B‘ +@>‘ O> =@$1#. O=‘ +1J O?!‘
<OD‘ $E‘ <‘ C1.A?‘ 1'‘ '. C<O‘ B>.C>O<. >?!‘ 1 O>.>?!‘ <?‘
+@>E‘ J>.>‘ C<%%>D!‘ B>O‘ 1'‘ '>.1C 1#?‘ +>BA>.!‘ $#+‘ 1'‘
+. >D‘ ,<%1#.‘ <OD‘ B % +<.E‘ D ?C A% O>‘ @>‘ C1B B<OD‘
1'‘ +@ ?‘ BA1.+<O+‘ A1?+‘ @<D‘ $>>O‘ O+.#?+>D‘ $E‘ %‘ V<=<%‘
+1‘ <‘ 01$%>‘ 11.!‘ O<B>D‘ <B>+‘ V>% !‘ J@1?>‘ .>01JO‘
O‘ +@>‘ A.>?>O+‘ J<.‘ @<D‘ $>>O‘ >?+<$% ?@>D‘ $E‘ @ ?‘ .>?1P
%#+>‘ D>'>OC>‘ 1'‘ 10D< T

>.D O<OD!‘ J@ %>‘ %E O=‘ $>'1.>‘ >%>G!‘ .>C> ,>D‘ OP
+>%% =>OC>‘ +@<+‘ B<OE‘ 1'‘ +@>‘ J><%+@E‘ $#.=@>.?‘ 1'‘ <P
%<=<‘ J>.>‘ OC% O>D‘ +1‘ C<A +#%<+>‘ <+‘ 1OC>!‘ .<+@>.‘ +@<O(
@<G<.D‘ +@>‘ D>B1% + 10‘ 1'‘ +@> .‘ C +E‘ $E‘ <O‘ 1$?+ O<+>‘
&.>? ?+<OC>‘ >‘ O?+.#C+>D‘ +@>‘ <.F# ?‘ 1'‘ <D G!‘
+@>.>'1.>!‘ +1‘ 1A>O‘ <‘ O>=1C <+ 1O‘ J +@‘ <B>+‘ V>% !‘
<#+@1. G O=‘ @ B‘ +1‘ B<H>‘ +@>‘ B1?+‘ % $>.<%‘ 1''>.?‘ +1

L‘ *)5 ‘ 1,)%(!‘ 5 ‘ ‘ (!‘ FF,.!J ‘ $4,) ‘ ()3>‘
%4 ‘ 1!‘ ,,,!‘ 3!‘ /!J $ >‘ (,)‘ 5 ‘ 3%)%‘) ‘ 3‘ ?DD!‘
'% !‘ *)‘ 5 ‘ ‘ C ‘ *%

+@>' <%C<ED>' @ B?>%'!' <?' J>%%' <?' @ ?' =<. . ?10!' <0D' +@>' A. 0C A<%' C + G>0?' 1 '' +@>' A%<C>!' 10' C10D + 10' 1 '' B B >P D <+>' ?#. .>0D>. ' @>' ?+#. DE' C@ >'!' @1 J >, >. !' . >"> C+>D' +@>' A. 1A1?<%' J +@' D ?D< 0' L' . >A%E 0=' +@<+' @>' @<D' $>>0' C1B B ?? 10>D' $E' @ ?' B<?+>. ' +1' D>'>0D' +@>' A%<C>' +1' +@>' %<?+' >K+. >B +E!' <0D' +@<+' +@>' @. ?+ <0' H 0=' C1#%D' 01+' 1''>. ' <' $. $>' %<. =>' >01#=@' +1' B<H>' @ B' $>+. <E' @ ?' +. #?+ ' >. D 0<0D!' ' 0D 0=' % ++%>' A. 1?A>C+' 1 '' 1A>P . <+ 0=' 10' +@ ?' A<. +<0' +>B A>. !' $. 1H>' #A' @ ?' C<B A' $>'1. >' >%>G' 10' +@>' 9+@' 1 '' <E!' <0D' <D, <0C>D' J +@' @ ?' J@1%>' <. B E' <?' '<. ' <?' >G B %%<0<!' <' A%<C>' 10' +@>' ?><C1<?+' <$1#+' +J 1' %><=#>?' D ?+<0+' '. 1B' <P %<=< T

@>' % 0>' 1 '' B<. C@' 01 J' %<E' +@. 1#=@' <' , <%%>E' C1 B P B<0D>D' <+' +@>' >K+. >B +E' 0><. >?+' +@>' C +E' $E' +J 1' >B 0>0C>?L' +@>' 10>' 10' +@>' ?><C1<?+!' +@>' 1+@>. ' '<C 0=' +@>' '1. +. >??' 1 '' +@>' >$<%'<. 1!' <0D' '1. B 0=' A<. +' 1 '' +@>' J %D' ? >. . <' J @ C@' 1, >. ?@<D1 J>D' <%<=<' 10' +@>' 01. +@ ' @>' >0>B E' 1CC#A >D' $1+@' +@>?>' B A1. +<0+' A1? + 10? ' ' C1. A?' 1 '' <% C <0?' J >. >' ?>0+' '1. J<. D' +1' D ?%1D=>' +@>B' '. 1B' +@>' >B 0>0C>' +1 J<. D?' +@>' ?>< ' $#+' +' '< %>D' 0' +@>' <??<#%+L' <0D!' 01+ J +@?+<0D 0=' +' J<?' %>D' #A' <' ?>C10D' + B >' $E' +@>' 1B B<0D>. ' 1 '' >10!' <0D' +@>' $. <, >' <. C %<??1' D>' %<' >=< '' J<?' <=< 0' . >A#%?>D' $E' +@>' 0+. >A D' '1>

Q' *$ % 5 ' ' % %(, ' ! 1, , % C' %)5' (, ., ' %) %(,) ' (!' FFF,,!' J ' E 51% ') , '!' C' 0' A, ' , ') ' B% ' 5 ( )5 5' : %)5' 5 ' E G' 0 ! 6D! J ' 0 1') ' 0' A ' 1 ' %)(,) ' $ '% ' *) ' 5 ' ' C ' *% !' %)5' A) $ %4 ' A $ ' ,)' *% , ! (!' FF, . ! 8C % ' P 1!' ,!' 3!' HH X' B, A' 0' A, ' (%. % , ' BA ' @' % 1 ' 00) C' A%)' $ $% ' A% ' ( ) 3, ($ $' 3% ' 4 A' ,)' A ,13$ 5' A, 1' % (A, . % $

+ / <B>? >.>! @1J>,>.! +@>E ?A>>D %E .<%% >DL <0D! $> 0= .> 0'1.C>D! <D,<0C>D +1 +@> C@< => < +@ .D + B>! J +@ ?#C@ 0'%>K $%> C1#.<=> <? $1.> D1J0 <%% 1AA1? + 10! <0D C1BA>%%>D +@> >0>BE! >K@<#?+>D! 1. .<+@>. 1,>.A1J>.>D $E ?#A>. 1. 0#B$>.?! +1 <$<0D10 @ ?A1? + 10 +@> ?<B> + B> +@> . ? 0= =.1#0D 10 +@> ?><? D> J<? C<.. >D $E +@> A<0 <.D? #0D>. +% > 1BB<0D>. 1 '' >10 <0D <.C %<??1 D> %< >=<! J@1! D , D 0= +@> . ''1.C>?! C@<.=>D +@> 11.? ?1 $. ?H%E 0 '.10+ <0D .><.! +@<+ +@>E J>.> C1 @A>%%>D +1 .>+.><+ 10 +@> 0> =@$1#. 0= '1.+.>?? 1 '' >$<%'<.1 T

? + J<? >,>0 0= $>'1.> +@>?> <D,<0+<=>? J>.> 1$+< 0>D! +@> <.BE D D 01+ D>'%%> 0+1 +@> A%< 0? <.1#0D <%<=< $>'1.> +@> '1%%1J 0= B1.0 0=! J@>0 D ?A1? + 10? J>.> B<D> '1. +? >0C<BAB>0+ @> >B 0>0C> 10 +@> ? >G.<! ?1 $.<,>%E C10+>?+>D! J<? <?? =0>D <? +@> A1?+ 1 '' =.><+>?+ D<0=>. +1 +@> <.F# ?M #H> 1 '' <D G + J<? A.1+>C+>D $E ?+.10= J1.H? ?#.B1#0+>D $E <.+ %%>.E L <0D < C1.A? 1 '' 78 @1.?> <0D 6! '11+ J<? A%<C>D #0D>. +@> BB>D <+> C1BB<0D 1 '' +@<+ 01$%>B<0 % 0> 1 ''D>'>0C> J<? C10?+.#C+>D <%10= +@> D>C% , +E '.1B +@ ? .>D1#$+ +1 +@> ?><?@1.> B %<. JB.H?! C10? ?+ 0= 1 '' < D>>A +.>0C@ <0D A<% ?<D>?! 1.! J@>.> +@> ?1 % J<? +11 .1CHE +1 <DB + 1 '' +@>B! 1 '' <0 >B$<0HB>0+ 1. B1#0D 1 '' ><.+@! J>.> '1.B>D 0 '.10+ 1 '' +@> >0C<BAB>0+! J@ C@ >B$.<C>D +@> J@1%> C .C# + 1 '' +@> C +EL <0D +@> $%1CH<D> J<? C1BA%>+>D $E < '%>>+ 1 ''<.B>D ,>?M

L $ '% *) 5 C)5 G% *)! 5 : %) *% > *% ,((! FF.! J % %G% 5 5)% ,4! ,! (! F,.!

?>%?!' =<%%>E?' <0D' C<.<,>%?!' J@ C@' .1D>' 0' +@>' @<.$1#.' #0D>.' C1B B<0D' 1'' +@>' <+<%<0' <DB .<%!' >F#>?>0?!' <0D' >''>C+#<%%E' C#+' 1''' <%%' C1B B#0 C<+ 10' $E' J<+>. T

@>' 1%D' C@.10 C%>.' >.0<%D>G' J<. B?' <+' +@>' <?A>C+' 1'' +@>' '< .' C +E' 1''' <%<=<' +@#?' >0C1B A<??>D' $E' @. ?+ <0' %>= 10?!' J@1?>' D>>A' % 0>?!' ?+.>+C@>D' '<.' 1,>.' @ %%' <0D' ,<%%>E!' .><C@>D' F# +>' .1#0D' '.1B' 10>' <. B' 1''+@>' ?><' +1'+@>' 1+@>. ' 0' +@>' B D?+' 1''+@ ?' $. %% <0+' >0C<BAB>0+' J<?' ?>>0' +@>' .1E<%' A<, % 10!' A.1#D%E' D ?A%<E 0=' +@>' #0 +>D' $<00>.?' 1'' <?+ %>'<0D' .<=10!' <0D' '1. B 0=' ?1' C10?A C#1#?' <' B<.H' '1.' +@>'>0>BE ?' <.+ %%>.E!'+@<+' >.D 0<0D!'<'+>.' B B 0>0+'@<G<.D!' J<?' <+' %>0=+@' C1BA>%%>D' +1' ?@ '+' @ ?' F#<.+>.?' @>' @. ?+ <0?' J>.>' 01+' ?%1J' 0' >.>C+ 0=' C1#0+>.'$<++>P . >?'L' $#+' +@>' J1.H' J<?' 1$% =>D' +1' $>' C<.. >D' 10' <+' 0 =@+!' 0' 1.D>.' +1' ?C.>>0' +@>B' '.1B' +@>' ' .>' 1''+@>' $>? >=>D '

@>' ' .?+'1A>.<+ 10?'1''+@>' A<0 <.D?' J>.>' D .>C+>D' <=< 0?+' +@>' ?#$#.$' 10' +@>'%<0D' ? D>' 1''+@>' C +E ' @>' <++<CH' J<?' 0+.#?+>D' +1' +@>' 1#0+' D>' '#>0+>?!' +@>' 01$%>B<0' J@1' @<D' $>>0' B<D>' A. ?10>.' 0' +@> <''< .' 1''+@>' K<.F# <!' <0D' ?#$?>F#>0+%E' .<0?1B>D ' @>' A<0 ?@' 1.D0<0C>' J<?' ?>. ,>D' J +@' ?#C@' >''>C+' +@<+' <' A.<C+ C<$%>' $.><C@' J<?' ?110' B<D>' 0' +@>' J<%% ' @>' C1B$<+<0+?' 01J' A1#.>D' +@> .' B#.D>.1#?' ,1%%>E?' 10' ><C@' 1+@>.' +@.1#=@' +@>' 1A>0 0=!' <0D' <+' %>0=+@' B>+' 10' +@>' .# 0?' 1''+@>'$.><C@ ' '+>.' <' D>?A>.<+>' ?+.#=M

L')%5 G' 8, ' 5 ' ' 5 ' *% 4%+% ')% ' !' %0, ' C ' *% ,(' !' (!' FFF,,,!' 49
J $ '% ' *),(%5 ' ' C ']' $ '% ' $4,' $3 %! J *$ %' *% ,(' (!' FF.,! J ' : % ,)5 G 5 ' ' % %(, ' !' $4,' $3 %!

=%>!‘ +@>‘ 11.?‘ =<,>‘ J<E‘ @>‘ @. ?+ <0?‘ .#?@>D‘ 0+1‘ +@>‘ 0C%1?#.>!‘ <+‘ +@>‘ ?<B>‘ + B>‘ >''>C+ 0=‘ <‘ %1D=P B>0+‘ 10‘ +@>‘ .<BA<.+L‘ <0D‘ <%+@1#=@‘ <‘ A<.+‘ 1'‘ +!‘ #0P D>.B 0>D‘ $E‘ +@>‘ >0>BE!‘ =<,>‘ J<E‘ J +@‘ <‘ +>.. $%>‘ C.<?@!‘ +@>E‘ ?+ %%‘ H>A+‘ A1??>?? 10‘ 1'‘ +@>‘ .>B< 0D>.!‘ <0D‘ <+‘ %>0=+@‘ D.1,>‘ +@> .‘ <0+<=10 ?+?!‘ J@1‘ ?#%%>0%E‘ .>+.><+>D‘ ?+>A‘ $E‘ ?+>A!‘ J +@ 0‘ +@>‘ '1.+ ' C<+ 10?‘ 1'‘ +@>‘ C +E‘ @>‘ % 0>?‘ J>.>‘ +@>0‘ D.<J0‘ C%1?>‘ <.1#0D‘ +@>‘ A%<C>‘ ,>.E‘ <,>0#>‘ 1'‘ C1BB#0 C<+ 10‘ J<?‘ ?+. C+%E‘ =#<.D>D!‘ <0D‘ >,>.E‘ A.>A<.<+ 10‘ J<?‘ B<D>‘ '1.‘ .>D#P C 0=‘ +@>‘ +1J0‘ $E‘ .>=#%<.‘ $%1CH<D> T

0‘ <DD + 10‘ +1‘ +@>‘ C<0010‘ $.1#=@+‘ .1#0D‘ $E‘ J<+>.‘ '.1B‘ >%>G!‘ +@>‘ @><, >.‘ %1B$<.D?!‘ J@ C@‘ '.1B‘ +@>‘ D ''C#%+E‘ 1'‘ +.<0?A1.+<+ 10‘ @<D‘ $>>0‘ %>'+‘ D#. 0=‘ +@>‘ %<+>‘ ? >=>‘ <+‘ 0+>F#>.<!‘ J>.>‘ 01J‘ C10D#C+>D‘ <C.1??‘ .1<D?‘ %>,>%%>D‘ '1.‘ +@>‘ A#.A1?>‘ +1‘ +@>‘ C<BA‘ #AA% >?‘ 1'‘ B<.$%>‘ $#%%>+?‘ J>.>‘ <%?1‘ $.1#=@+‘ '.1B‘ +@>‘ <0C >0+‘ <0D‘ D>A1A#%<+>D‘ C +E‘ 1'‘ %=>C .<?!‘ J@>.>‘ +@>E‘ @<D‘ %< 0‘ >,>.‘ ? 0C>‘ +?‘ C<A+#.>‘ 0‘ +@>‘ A.>C>D 0=‘ C>0+#.E‘ $E‘ %A@10?1‘ ; ‘ @>‘ C<BA‘ J<?‘ ' %%>D‘ J +@‘ 1A>.<+ ,>?‘ >BA%1E>D‘ 0‘ +@>‘ B<0#'<C+#.>‘ 1'‘ $<%%?‘ <0D‘ A1JD>.!‘ J@ C@‘ J>.>‘ ?+1.>D‘ 0‘ ?#$+>..<0><0‘ B<=<G 0>?!‘ <0D‘ 0‘ +@>‘ '<$. C<+ 10‘ 1'‘ +@1?>‘ ,<. 1#?‘ H 0D?&1'‘ $<++>. 0=‘ >0= 0>.E‘ J@ C@‘ C10+ 0#>D‘ 0‘ #?>‘ %10=‘ <'+>.‘ +@>‘ 0+.1P D#C+ 10‘ 1'‘ =#0A1JD>. '

#. 0=‘ +@>‘ ><.%E‘ A<.+‘ 1'‘ +@>‘ ? >=>!‘ +@>‘ C<BA‘ >KA>P .>0C>D‘ ?1B>‘ +>BA1.<.E‘ 0C10,>0 >0C>‘ '.1B‘ +@>‘ 1CC<M

Q‘ !‘ % C,‘ 3$‘ 3, >‘ FFF,,,! J .,5‘ #$,)($%')%‘ % $1 ,4!,!‘ 3! F,,!< 5!‘ / !‘ ! %!‘ 2$,)(!‘ 5,%!‘ ! RJ $'%‘ *),(%‘ (!‘ FF.,! J‘ 0‘ $'%‘ C‘ *% ,(‘ (! 1%5 G‘ 8, ‘5‘ ‘ C ‘(! FF.,!

? 1O<‰ 0+>..#A+ 1O’ 1’’ +@>’ ?#AA% >?’ +.<0?A1.+>D’ $E’ J<+>.’ #B1#.?’ 1’’ +@>’ <AA><.<OC>’ 1’’ +@>’ A%<=#>’ O’ ?1B>’ 1’’ +@>’ <D"<C>O+’ , %%<=>?!’ C<#?>D’ <DD + 1O<‰ #O><? O>??L’ <OD’ D>?>.+>.?!’ J@1’ A<??>D’ O+1’ <%<=<!’ .>A1.+>D’ +@>?>’ A<.+ C#%<.?’ J +@’ +@>’ #?#<‰ >K<==>.<P + 1O!’ <OD’ >OC1#.<=>D’ +@>’ $>? >=>D’ +1’ A>.?>,>.>!’ $E’ +@>’ <??#.<OC>’ +@<+’ >.D O<OD’ C1#%D’ O1+’ B#C@’ %1O=>.’ H>>A’ +@>’ ' >%D!’ <OD’ +@<+’ +@>’ F#>>O’ @<D’ <C+#<%%E’ J . +P +>O’ +1’ <D, ?>’ @ ?’ $.><H O=’ #A’ +@>’ C<BA’ & OD>.’ +@>?>’ C .C#B?+<OC>?!’ >.D O<OD’ ?<J’ <+’ 1OC>’ +@>’ BP A1.+<OC>’ 1’’ +@>’ F#>>O ?’ A.>?>OC>’ O’ 1.D>.’ +1’ D ?A>‰ +@>’ D>%#? 1O’ 1’’ +@>’ >O>BE!’ <OD’ +1’ = ,>’ O>J’ @><.+’ +1’ @ ?’ ?1%D >.?’ >’ <CC1.D O=%E’ ?>O+’ <’ B>??<=>’ +1’ 1.P D1,<!’ J@>.>’ ?@>’ J<?’ @1%D O=’ @>.’ C1#.+!’ .>F#>?+ O=’ @>.’ <AA><.<OC>’ O’ +@>’ C<BA

?<$>%%<’ @<D’ A.1A1?>D’ +1’ "1 O’ @>.’ @#?$<OD’ $>'1.>’ >%>G!’ 1O’ .>C> , O=’ + D O=?’ 1’’ V<=<% ?’ B<.C@’ '.1B’ .<O<D<!’ <OD’ @<D’ <C+#<%%E’ >O'1.C>D’ %>, >?’ 1’’ <%%’ A>.P ?1O?’ C<A<$%>’ 1’’ $><. O=’ <.B?!’ $>+J>>O’ +J>O+E’ <OD’ ?>,>O+E’ E><.?’ 1’’ <=>!’ +@.1#=@1#+’ OD<%#? <!’ $#+’ ?#$P ?>F#>O+%E’ D ?$<OD>D’ +@>B’ 1O’ %><.O O=’ +@>’ D ?C1B' +P #.>’ 1’’ +@>’ 11. ?@’ <.BE’ +@1#+’ @>? +<+ 1O!’ ?@>’ O1J’ ?>+’ '1.J<.D!’ <CC1BA<O >D’ $E’ +@>’ <.D O<‰ 1’’ A< O’ <OD’ 1+@>.’ D =O +<. >?’ 1’’ +@>’ C@#.C@!’ +1=>+@>.’ J +@’ +@>’ O'<O+<’ ?<$>%%<!’ <OD’ <’ C1#.+%E’ +.< O’ 1’’ %<D >?’ <OD’ C<,<% >.?’ O’ <++>OD<OC>’ 1O’ @>.’ A>.?1O’ @>’ J<?’ .>C> ,>D’ <+’ <’ ?@1.+’ D ?+<OC>’ '.1B’ +@>’ C<BA’ $E’ +@>’ <.F# ?’ 1’’ <D G’ <OD’ +@>’ .<OD’ <?+>.’ 1’’ +’ /<B>?!’ <OD’ >?C1.+>D’ +1’ @>.’ F#<.+>.?’ <B D?+’ +@>’ >O+@#? <?+ C’ =.>>+ O=?’ 1’’ +@>’ ?1%D >.E’ 1A>’ O1J’ $. =@+>O>D

>,>.Eʻ C1#0+>0<0C>ʻ ʻ=.<C>ʻ?>>B>Dʻ +1ʻ $>ʻ?@>Dʻ 1,>.ʻ +@>ʻ .#==>Dʻ '><+#.>?ʻ 1'ʻ J<.Lʻ <0Dʻ +@>ʻ E1#0=ʻ =<%%<0+?ʻ +@.10=>Dʻ '.1Bʻ <%%ʻ F#<.+>.?ʻ +1ʻ +@>ʻ C<BA!ʻ><=>.ʻ +1ʻ J 0ʻ +@>ʻ =#>.D10ʻ 1'ʻ ,<%1#.ʻ '.1Bʻ +@>ʻ @<0D?ʻ 1'ʻ +@1?>ʻ '.1Bʻ J@1Bʻ +ʻ ?ʻ B1?+ʻ=.<+>'#%ʻ +1ʻ .>C> ,>ʻ + T

>.D 0<0D!ʻ J@1ʻ @<Dʻ @ +@>.+1ʻ $.1#=@+ʻ 0+1ʻ <C+ 10ʻ 10%Eʻ +@>ʻ % =@+>.ʻ A >C>?ʻ 1'ʻ 1.D0<0C>!ʻ '.1Bʻ <ʻ J %% 0=P 0>??ʻ +1ʻ ?A<.>ʻ +@>ʻ 01$%>ʻ >D ' C>?ʻ 1'ʻ +@>ʻ C +E!ʻ 01Jʻ A1 0+>Dʻ @ ?ʻ @><, >?+ʻ =#0?ʻ <=< 0?+ʻ +?ʻ J<%%?ʻ >'1.>ʻ 1A>0 0=ʻ @ ?ʻ ' .>!ʻ @1J>,>.!ʻ @>ʻ <=< 0ʻ ?#B B10>Dʻ +@>ʻ A%<C>!ʻ 1''>. 0=ʻ +@>ʻ #?#<%ʻ % $>.<%ʻ +>. B?ʻ 0ʻ C<?>ʻ 1'ʻ BP B>D <+>ʻ C1BA% <0C>!ʻ <0Dʻ >0=<= 0=ʻ 1+@>. J ?>!ʻ Qʻ J +@ʻ +@>ʻ $%>?? 0=ʻ 1'ʻ 1D!ʻ +1ʻ B<H>ʻ +@>Bʻ < ʻ ?%<,>?Zʻ #+ʻ +@>ʻ @><.+ʻ 1'ʻ +@>ʻ <%C<ED>ʻ J<?ʻ @<.D>0>Dʻ % H>ʻ +@<+ʻ 1'ʻ 5@<.<1@!ʻ ?<E?ʻ +@>ʻ 0D<%#? <0ʻ C@.10 C%>.!ʻ <0Dʻ +@>ʻ A>1A%>ʻ J>.>ʻ ?J>%%>Dʻ J +@ʻ ,<0ʻ @1A>?!ʻ ?1ʻ +@<+ʻ +@> .ʻ ><.?ʻ J>.>ʻ C%1?>Dʻ <=< 0?+ʻ +@>ʻ A.1A1?<%Lʻ 1.D>.?ʻ J>.>ʻ >,>0ʻ ??#>Dʻ +1ʻ A#0 ?@ʻ J +@ʻ D><+@ʻ <0Eʻ <++>BA+ʻ <+ʻ <ʻ A<.%>Eʻ 0ʻ +@>ʻ C10+.<.E!ʻ +@>Eʻ B<D>ʻ <0?J>.ʻ $Eʻ <ʻ B1.>ʻ % ,>%Eʻ C<0010<D>ʻ +@<0ʻ $>'1.>!ʻ <%10=ʻ +@>ʻ J@1%>ʻ % 0>ʻ 1'ʻ .<BA<.+?ʻ <0Dʻ '1.+.>??>?ʻ J@ C@ʻ 1,>.@#0=ʻ +@>ʻ C +Eʻ <%% >?ʻ J>.>ʻ <%?1ʻ B<D>ʻ <+ʻ <%B1?+ʻ >,>.Eʻ @1#.ʻ 1'ʻ +@>ʻ D<Eʻ <0Dʻ 0 =@+ʻ 10ʻ >,>.Eʻ <??< %<$%>ʻ A1 0+ʻ 1'ʻ+@>ʻ @.?+ <0ʻ % 0>?!ʻ ?1ʻ +@<+ʻ +@>ʻ C<BAʻ J<?ʻ H>A+ʻ 0ʻ A>.P A>+#<%ʻ <%<.Bʻ 0ʻ 10>ʻ 1'ʻ+@>ʻ 01C+#.0<%ʻ?<%% >?!ʻ <ʻ $1DEʻ 1''7! ʻ B>0ʻ '.1Bʻ +@>ʻ C<?+%>ʻ 1'ʻ >$<%'<.1ʻ?#CC>>D>Dʻ 0ʻ ?#.A.?0=ʻ +@>ʻ F#<.+>.?ʻ 1'ʻ+@>ʻ <.F#?ʻ 1'ʻ <D G!

Lʻ %%G%ʻ5ʻ)5 G%ʻ*)!ʻ 1!ʻ,.!ʻ (!ʻ FF! J *$% 5ʻ ʻ 5ʻ : %)ʻ*% 5)%ʻ ,4!ʻ,!ʻ (!ʻ F,.!ʻ %%(, ʻ !ʻ (!ʻ FFF,,,! JʻN$,%ʻ)% ʻ 5ʻ %')

J@1!' J +@' @ ?' '1%%1J>.?!' J<?'>K@<#?+>D' $E''<+ =#>' <0D'
, = %' D#. 0=' +@>' +J1' A.>C>D 0=' 0 =@+?' @>' @. ?P
+ <0?!' $>J %D>.>D' J +@' +@>' ?#DD>0' +#B#%+' J@ C@'
$.1H>' +@> .' ?%#B$>.!' J>.>' +@.1J0' 0+1' +@>' =.><+>?+'
C10'#? 10L' <0D' +@>' B<.F# ?!' J@1' .#?@>D' @<%''<.B>D'
'.1B' @ ?' +>0+!' '1#0D' 01' % ++%>' D '' C#%+E' 0' $. 0= 0='
+@>B' +1' 1.D>.!' <0D' $><+ 0=' 1''' +@>' <??< %<0+?!' <'+>.'
.>C> , 0=' <' J1#0D' 0' +@>' <.B' '.1B' <0' <..1J' L' J@ %>'
@>' @<D' <' ?+ %%' 0<..1J>.' >?C<A>' '.1B' +@>' $<%%' 1''' <0'
<.F#>$#??!' +@<+' A>0>+.<+>D' @ ?' $#CH%>.' <0D' @ +' @ B'
$>%1J' +@>' C# .<??!' $#+' '1.+#0<+>%E' ?1' B#C@' ?A>0+' <?'
+1' D1' @ B' 01' 0"#.E T

@> 11.?' J>.>' 01+' #0B 0D'#%' 1''+@>' BA1.+<0C>'
1''' <%<=<!' 1.'+@>' =<%%<0+.E' J +@' J@ C@' +' J<?' D>'>0DP
>D' @>E' B<D>' ?>,>.<%' <++>BA+?' +1' .>% >,>' +!' J@1?>'
'< %#.>' J<?' %>??' BA#+<$%>' +1' +@>' @. ?+ <0?' +@<0' +1'
+.><C@>.E' <0D' +@> .' 1J0' B ?>.<$%>' '>#D?' ' $1DE'
1''' C<,<%.E!' J@ C@' %' V<=<%' D>?A<+C@>D' '.1B' #<D K'
+1' +@.1J' ?#CC1#.?' 0+1' +@>' $>%><=#>.>D' C +E!' J<?' >0P
C1#0+>.>D' <0D' C#+' +1' A >C>?' $E' <' ?#A>. 1.' '1.C>' 1''+@>'
E1#0=' S 0=' $D<%%<@!' J@1' C10?#B B<+>D' @ ?' $<?>0>??'
$E' ?>0D 0=' <0' >B$<??E' +1' +@>' @. ?+ <0' C<BA!' C@<.P
=>D' J +@' <' A.>?>0+' 1''' .<$ <0' @1.?>?' ?#BA+#1#?%E'
C<A<. ?10>D' +1' >.D 0<0D!' <0D' 1''' C1?+%E' ? %H?' <0D'
1. >0+<%' A>.'#B>?' +1' +@>' F#>>0L' <+' +@>' ?<B>' + B>'
C1BA% B>0+ 0=' +@>B' 10' +@> .' ?#CC>??>?!' <0D' ?1% C +P
0=' +@>' C10+ 0#<0C>' 1''' +@> .' '. >0D%E' D ?A1? + 10?' +1M

L' 5%' *), %5' ' >' 8, ' 5' ' C ')' C'
' ,4!' E!' (!' F.! J *)5' %!' %4' !' (!' FFF,,,! J , ,'%' '
5' ' %4')' 3%)%')!' *),(%' (!' FF,F!'
,.!' 33' ' I! J 1%5 G

J<.D?' @ B?>%'' >.D 0<0D' <0D' ?<$>%%<' .>F# +>D' +@ ?' <C+' 1'' @#B % <+ 10' $E' ?>C#. 0=' +1' $D<%%<@ ?' ?#$">C+?' +@>' . =@+' 1'' C#%+ ,<+ 0=' +@> .' ' >%D?' 0' F# >+!' <0D' 1'' +.<'% CH 0=' J +@' +@>' A<0 <.D?' 0' >,>.E' C1B B1D +E' ?<,>' B % +<.E' ?+1.>?'' +' +@ ?' A<%+.E' A. C>' D D' +@>' D<?+<.D' A. 0C>' C10?>0+' +1' ?+<E' @ ?' <.B!' <+' +@>' 10%E' B1B>0+' J@>0' +' C1#%D' $>' #?>D' >''>C+#<%%E' '1.' @ ?' C1#0+.E T

1.>' ?>. 1#?' C10?>F#>0C>?' @<D' % H>' +1' @<,>' .>P ?#%+>D' '.1B' <0' <++>BA+' B<D>' $E' <01+@>.' A<.+E' 1'' 11.?!' '.1B' #<D K!' +1' A>0>+.<+>'+@>' @. ?+ <0' % 0>?' 5<.+' 1'' +@>B' ?#CC>>D>D!' <0D' +@.>J' +@>B?>%,>?' 0+1' +@>' $>%><=#>.>D' C +E' @>' .>B< 0D>.' J>.>' C#+' 0' A >C>?'' @>.>' J<?' 10>!' @1J>,>.!' J@1!' B<H 0=' 01' ?@1J' 1'' .>? ?+<0C>!' J<?' B<D>' A. ?10>.' J +@1#+' @<.B' +1' @ ?' A>.?10'' > 0=' $.1#=@+' $>'1.>' +@>' <.F# ?' 1'' <D G!' @>' 0'1.B>D' +@<+' 01$%>B<0' +@<+' @>' C1#%D' B<H>' ?1B>' BA1.+<0+' D ?C%1?#.>?' +1' +@>' ?1,>.> =0?'' >' J<?' <CC1.D 0=%E' C10D#C+>D' +1' +@>' .1E<%' +>0+L' $#+!' <?' >.D 0<0D' J<?' +<H 0=' @ ?' ? >?+<' 0' +@>' ?#%+.E' @1#.' 1'' +@>' D<E!' +@>' F#>>0!' B1,>D' $E' D , 0>' 0?A P .<+ 10!' <CC1.D 0=' +1' +@>' <?+ % <0' @ ?+1. <0!' D>'>..>D' +@>' <#D >0C>' + %%' @>.' @#?$<0D' ?@1#%D' <J<H>!' <0D' C1B B<0D>D' +@>' A. ?10>.' +1' $>' D>+< 0>D' 0' +@>' <DM

L' $ '% '$4,' $3 %! ($, ' ,)' ' A' 5, %) %)' $,)'' A' , ' '%14% %5 ' A' . ,'')' ' %(, $ C' (1; % ,. 5'0 1' %)' 0 ,(%)' 3); 3 , 5' B, A' A' % ' 2$ ' % ' A'" ,)'' 0' 1 ( )'4 %; %)5' (13,1) 5' A' 0 ,(%)' ,)''%' 1%'),0,( )'3)' ' A' 1)% (A' B, A'%' 3 % ' 0' ' 5' *% , ,%)' . ,')' ,) (5,)'')' B ,,(A' A' C%'% 1' B ' 0' A' %%'%) '%)5' %' A' ($, $ C' 14 5' %C' >' %1' ,1 '% @,)'' 3 (,)'0')%5 G' (' FFF,.! A,' $4+ (' 0 1' A' 3%), A

"1 0 0=' +>0+' @ ?' J<?' 1CC#A >D' $E' 10<' ><+. C>' D>' 1$<D %%<!' <.C@ 10>??' D>' 1E<!' ?<$>%%< ?' ><.%E' '. >0D!' J@1' @<AA>0>D' +1' $>' <+'+@<+'+ B>' >0=<=>D' O' D ?C1#.?>' J +@' <' 51.+#=#>?>' 01$%>B<0!' 10' %,<.1!' ?10' 1''+@>' #H>' 1'' .<=<0G< T

@>' 11.' D D' 01+' #0D>.?+<0D' +@>' <?+ % <0' %<0P =#<=>!' <0D!' D>C> ,>D' $E' +@>' . C@' <++ .>' <0D' C1#.+%E' $><. 0=' 1'' +@>?>' A>.?10<=>?!' @>' B ?+11H' +@>B' '1.' +@>' H 0=' <0D' F#>>0' @ %>' 0' +@>' <C+' 1'' .>'.>?@ 0=' @ B?>%'' J +@' <' =%<??' 1'' J<+>.!' @>' ?#DD>0%E' D.>J' <' D<==>.'' .1B' $>0><+@' +@>' $.1<D' '1%D?' 1'' @ ?' <%$1.01G!' 1.' 11. ?@' B<0+%>!' J@ C@' @>' @<D' $>>0' 0C<#+ 1#?%E' ?#''>.>D' +1' .>+< 0!' <0D!' D<.+ 0=' 10' +@>' 51.+#=#>?>' A. 0C>!' =<,>' @ B' <' D>>A' J1#0D' 10' +@>' @><DL' <0D' +@>0!' +#.0 0=' % H>' % =@+0 0=' 10' +@>' B<.C@ 10>??!' < B>D' <' ?+.1H>' <+' @>.!' J@ C@' '1.+#0<+>%E' =%<0C>D' J +@1#+' 0"#.E!' +@>' >D=>' 1''+@>' J><A10' $> 0=' +#.0>D' $E' +@>' @><,E' >B$.1 D>.E' 1'' @>.' .1$>?' >'1.>' @>' C1#%D' .>A><+' @ ?' $%1J!' +@>' 11. ?@' C<>,1%<!' J +@' <' '<+>' ,>.E' D ''>.>0+' '.1B' +@<+' 1'' @ ?' 1B<0' A.1P +1+EA>!' J<?' A >.C>D' J +@' <' @#0D M>D' J1#0D?' $E' +@>' <++>0D<0+?!' J@1' .#?@>D' +1' +@>' ?A1+!' <%<.B>D' $E' +@>' C.>?' 1'' +@>' B<.C@ 10>??L' <0D' @ ?' B<0=%>D' .>B< 0?' J>.>' ?110' <'+>.' D ?C@<.=>D' '.1B' <' C<+<A#%+' 0+1' +@>

Q' A,') 4 1%)')' .% ' A'B%') % C' % 5'%)5' $4; 5' $'% ' A%5'0 5'A,')%,. ' 2$) C' 3 0 5' ' . %' ($) C'%)5' $'A'%)'% C $1' ,13 %)' 00,(' 0' % ! 8,' ,)' *% , ' 0 1' A' .,)5,(,. ')' A' *)5'5': . ' 1%;)1, C' 0'? A)' 'BA'A%5'3$' , 5' A'T%)5>5%$'A ' 0'*A, ; '5 % A' A' $@' 0' %'%)G%' 3A '* 14 ! #$,)($%')%' A,' 5 '4 A ! 8 'B%'@,)5 C' 5' ., 5 ' (,. 5' 4C' %4 %' ' BA 1

C +E ' < '11% ?% ' $.<,<D1! J@ C@ +@>' $>? >=>D .>F# +>D $E ?%<E 0=' < <%% C <0 =>0+%>B<0!' <0D ?>0D 0=' @ ?' C1.A?>' <?+. D>' #A10 < B#%>' +@.1#=@ +@>' =<+>?' 1'' +@>' +1JO 0+1' +@>' @. ?+ <0 C<BA T

@ ?' D<. 0=' <++>BA+' 10 +@>' % ,>?' 1'' +@>' H 0=' <0D F#>>0 ?A.><D =>0>.<% C10?+>.0<+ 10 +@.1#=@1#+' +@>' <.BE ' 5.>C<#+ 10?' J>.>' +<H>0 '1.' +@>' '#+#.>' $E 1.D 0<0C>?' A.1@ $ + 0=' +@>' 0+.1D#C+ 10 1'' <0E #0P H01J0 A>.?10 <.B>D! 1.' <0E 11.' J@<+>,>.! 0+1' +@>' .1E<% F#<.+>.?L' <0D +@>' $1DEM=#<.D J<?' <#=P B>0+>D $E +@>' <DD + 10 1'' +J1' @#0D.>D @ D<%=1?' 1'' <?+ %>' <0D .<=10! J@1! J +@ +@> .' .>+< 0>.?! J>.>' +1&H>>A' C10?+<0+' J<+C@ 1,>.' +@>' A>.?10?' 1'' +@>' ?1,>P .> =0?

0 +@>' B><0 J@ %>! +@>' C +E 1'' <%<=<! J@1?>' 0<P +#.<% A1A#%<+ 10 J<?' =.><+%E ?J>%%>D $E +@>' 0'%#K 1'' +?' '1.> =0 <#K % <. >?! $>=<0 +1' $>' ?+.< +>0>D' '1.' ?#AA% >?! J@ %>' +?' D ?+.>??' J<?' <==.<,<+>D $E +@>' ?A>C+<C%>' 1'' <$#0D<0C>' J@ C@ .> =0>D +@.1#=@1#+' +@>' A<0 ?@' C<.<A'' + %%! @1J>,>.! +@>' A>1A%>! 1,>.P <J>D $E +@>' ?1%D >.E! D D' 01+' $.><H 1#+' 0+1' B#.P B#.?! 01.' D D +@>E .>%<K 0 <0E D>=.>>' +@>' A>.+ P 0<C +E 1'' +@> .' .>? ?+<0C>' @> .' D.11A 0=' ?A . +?' J>.>' C@>>.>D $E +@>' A.>D C+ 10?' 1'' <' '<0<+ C! J@1' A.1B ?>D +@<+' +@>E' ?@1#%D' ><+' +@>' =.< 0 J@ C@ +@>E' ?<J' 0 +@>' @. ?+ <0 C<BA<' <A.>D C+ 10 J@ C@ C<B>' +1' $>' ,>. ' >D! % H>' B1?+' 1+@>.?' +@<+' <.>' ,>. ' >D <+

L' ., 5 ' #$,)($%')% ' ! !(! FFF,.! J 5%' *),(% % ! 2$,)(! ' 5,% ! F,,,! J ! 5 ' ' ' ,4! .! (! F.!! J ! % C ' ,4! ,!% 3! F,,,! J > ! ,($ ' * % ' 1 %4 ' 5 ')% 5 G! 8, ' 5 ' ' C ' *%! 3%,,%' 0 ! /6' / !

<%%!ʻ 0ʻ <ʻ ,>.Eʻ D ''>.>0+ʻ ?>0?>ʻ '.1Bʻ +@<+ʻ 0+>0D>Dʻ 1.ʻ #0D>.?+11D

@>ʻ 0C>??<0+ʻ C<0010<D>ʻ H>A+ #Aʻ $Eʻ +@>ʻ $>? >= 0=ʻ <.BE!ʻ 0ʻ +@>ʻ B><0ʻ J@ %>!ʻ ?1ʻ '<.ʻ >K@<#?+>Dʻ +@> .ʻ <B B#0 + 10!ʻ +@<+ʻ +@>Eʻ J>.>ʻ C10?+.< 0>Dʻ +1ʻ ?>>Hʻ ?#AA% >?ʻ '.1Bʻ +@>ʻ B1?+ʻ D ?+<0+ʻ A<.+?ʻ 1''+@>ʻ H 0=D1B!ʻ <0Dʻ '.1Bʻ '1.> =0ʻ C1#0+. >?ʻ @>ʻ <.. ,<%ʻ 1''ʻ +J1ʻ %>B ?@ʻ +.<0?A1.+?ʻ <+ʻ +@ ?ʻ "#0C+#.>ʻ '.1Bʻ +@>ʻ BP A>.1.ʻ 1''ʻ >.B<0E!ʻ J@1?>ʻ 0+>.>?+ʻ@<Dʻ $>>0ʻ .1#?>Dʻ 0ʻ +@>ʻ C.#?<D>!ʻ <''1.D>Dʻ <ʻ ?><?10<$%>ʻ .> 0'1.C>B>0+ʻ 1''ʻ B % +<.Eʻ ?+1.>?ʻ <0Dʻ B#0 + 10?

@>ʻ A>.+ 0<C 1#?ʻ D>'>0C>ʻ 1''ʻ <%<=<ʻ @<Dʻ = ,>0ʻ +@>ʻ ? >=>ʻ ?#C@ʻ C>%>$. +E!ʻ +@<+ʻ ,1%#0+>>.?!ʻ ><=>.ʻ +1ʻ ?@<.>ʻ 0ʻ +!ʻ '%1CH>Dʻ '.1Bʻ <%%ʻ A<.+?ʻ 1''ʻ +@>ʻ A>0 0?#%<ʻ +1ʻ +@>ʻ .1E<%ʻ ?+<0D<.Dʻ B10=ʻ 1+@>.?!ʻ +@>ʻ #H>ʻ1''ʻ >D 0<ʻ D10 <!ʻ J@1ʻ @<Dʻ '#.0 ?@>Dʻ @ ?ʻ F#1+<ʻ 1''ʻ+.11A?ʻ <+ʻ +@>ʻ 1A>0 0=ʻ1''ʻ+@>ʻ C<BA< =0!ʻ 01J'<.. ,>Dʻ 0ʻ A>.?10ʻ J +@ʻ <0ʻ <DD + 10<%ʻ .> 0'1.C>B>0+!ʻ +1=>+@>.ʻ J +@ʻ <ʻ @#0D.>Dʻ =<%%>E?ʻ '.> =@+>Dʻ J +@ʻ ?#AA% >?!ʻ <0Dʻ <ʻ %1<0ʻ 1''7 ! ʻ D1$%<?ʻ 1''ʻ =1%Dʻ +1ʻ +@>ʻ ?1,>.> =0?ʻ '1.ʻ +@>ʻ >KA>0?>?ʻ 1''ʻ +@>ʻ J<.ʻ #C@ʻ J<?ʻ +@>ʻ D>>Aʻ 0+>.>?+ʻ 0ʻ +ʻ >KC +FDʻ +@.1#=@1#+ʻ +@>ʻ 0<+ 10!ʻ <0Dʻ +@>ʻ <%<C. +Eʻ J@ C@ʻ >,>.Eʻ 1.D>.ʻ 1''ʻ B>0ʻ >K@ $ +>Dʻ 0ʻ ?#AA1.+ 0=ʻ +?ʻ >01.B1#?ʻ $#.D>0? T

@>ʻ <?+ % <0ʻ <.BE!ʻ ?J>%%>Dʻ $Eʻ +@>?>ʻ D< %Eʻ <#=P B>0+<+ 10?!ʻ ,<. >Dʻ 0ʻ +?ʻ <B1#0+!ʻ <CC1.D 0=ʻ +1ʻ D 'P '>.>0+ʻ >?+ B<+>?!ʻ '.1Bʻ? K+Eʻ +1ʻ0 0>+Eʻ +@1#?<0Dʻ B>0ʻ @.1#=@1#+ʻ +@ ?ʻ BB>0?>ʻ @1?+!ʻ +@>ʻ B1?+ʻ A>.'>C+

D ?C A% 0> J<? B< 0+< 0>D <B 0= J<? .>?+.< 0>D $E 1.D 0<0C>? 0+>.D C+ 0= +@> #?> 1 D C> <0D C<.D?! 1 J@ C@ +@> %1J>.' 1.D>.? J>.> A<?? 10<+>%E '10D %<?A@>BE J<? ?>,>.>%E A#0 ?@>D 5.1?+ +#+>?! +@> C1BB10 A>?+ 1 <' C<BA! J>.>'>KC%#D>DL <0D?1'>0+ .> J<? +@> ?#$1.D 0<+ 10! +@<+ 01+ < H0 '> J<? D.<J0! <0D ?C<.C>%E < $.<J% 1CC#..>D! ?<E? +@> @ ?+1. <0! <B10= +@> B1+%>E B#%+ +#D> >? D>? +@> @ =@>.'>CP C%>? <?+ C? J@1' <++>0D>D +@> C1#.+! +@> C<BA' J<? J>%% ?#AA% >D J +@ @1%E B>0! A. >?+?! '. <.>! <0D +@> C@<AP %< 0? 1 +@> =.><+ 01$ % +E! J@1' A>.'1.B>D +@> >K>.P C ?>? 1 '.>% = 10 0 +@> .' .>?A>C+ ,> F#<.+>.? J +@ <%% +@> A1BA <0D ?A%>0D1#.' 1 '+@> 1B<0 <+@1% C J1.P ?@ AL >K<%+ 0= +@> B<= 0<+ 10? 1 '+@> ?1%D >.? 0+1' +@> @ =@ D>,1+ 10<% '>>% 0= J@ C@ $>C<B> +@1?> J@1' J>.> ' =@+ 0= +@> $<++%>? 1 '+@> .1?? T

+@>.+1! >.D 0<0D! .>%E 0= 10 +@> $%1CH<D>! <0D E >%D 0= +1' +@> F#>>0 ? D>? .> +1' ?A<.> +@> % ,>? 1 '@>.' ?1%D >.?! @<D '1.B>D 01' .>=#%<.' A%<0 1 '+ <??<#%+ #A10 +@> +1 J 0L $#+ <? +@> ?><?10 .1%%>D 10 J +@1#+ +@> %><?+ D>B10?+.<+ 10 1 '?#$B ?? 10 10 +@> A<.+ 1 '+@> $>? >=>D! @> .>?1%,>D +1' ?+1.B' +@> J1.H?! J@ C@! '<++>0D>D $E 01' 1+@>.' C10?>F#>0C>?! B =@+ <+ %><?+ ?>.,> +1' D ?+.>??' +@> >0>BE! <0D @<?+>0 +@> @1#.' 1 '?#..>0D>. <.=> J11D>0 +1J>.? 10 .1%%>.? J>.> <CP C1.D 0=%E C10?+.#C+>D! <0D A.1, D>D J +@ <0 <AA<P .<+#? 1 '.<J$. D=>? <0D %<DD>.?! J@ C@! J@>0 <AP A.1<C@>D +1' +@> .<BA<.+?! J1#%D 1A>0 <' D>?C>0+ 0+1

Q 1%5 G'8, '5' ' C '*% ! ! (! FFF.,,! J $ '% ' *)'5' ' C '(! FF,!

+@>‘ C +E‘ <%%>. >?‘ J>.>‘ <%?1‘ J .1#=@+!‘ ?1B>‘ '1.‘ +@>‘ A#.A1?>‘ 1'‘ A>0>+.<+ 0=‘ 0+1‘ +@>‘ A%<C>!‘ <0D‘ 1+@>.?‘ +1‘ ?<A‘ +@>‘ '1#0D<+ 10?‘ 1'‘ +@>‘ J<%%?’ @>‘ J@1%>‘ 1'‘ +@>?>‘ 1A>.<+ 10?‘ J<?‘ A%<C>D‘ #0D>.‘ +@>‘ D .>C+ 10‘ 1'‘ .<0P C ?C1‘ <B .>G!‘ +@>‘ C>%>$.<+>D‘ >0= 0>>.‘ 1'‘ <D. D

#+‘ +@>‘ 11.?‘ <0+ C A<+>D‘ +@>‘ C1BA%>+ 10‘ 1'‘ +@>?>‘ '1.B D<$%>‘ A.>A<.<+ 10?‘ $E‘ <‘ $. ?H!‘ J>%%MC10C>.+>D‘ <++<CH‘ 10‘ <%%‘ A1 0+?‘ 1'‘ +@>‘ A<0 ?@‘ % 0>?’ @>E‘ C1#0+>.B 0>D‘ +@>‘ <??< %<0+?!‘ <0D‘ >0C1#0+>. 0=‘ +@>B‘ 0‘ +@>‘ ?#$+>..<0>1#?‘ A<??<=>?!‘ D.1,>‘ +@>B‘ $<CH!‘ <0D‘ D>B1% ?@>D‘ +@>‘ '.<B>J1.H‘ 1'‘ +@>‘ =<%%>. >?’ +‘ +@>‘ <B>‘ + B>!‘ H‘ % ++%>‘ ?F#<D.10‘ 1'‘ <.B>D‘ ,>??>%?!‘ J@ C@‘ @<D‘ $>>0‘ . D 0=‘ 0‘ ?<'>+E‘ #0D>.‘ +@>‘ =#0?‘ 1'‘ +@>‘ C +E!‘ A#?@>D‘ 1#+‘ <0D‘ >0=<=>D‘ +@>‘ A<0 ?@‘ '%>>+’ @#?‘ +@>‘ $<++%>‘ .<=>D‘ J +@‘ ' .>‘ <0D‘ ?J1.D!‘ <$1,>‘ <0D‘ #0D>.‘ =.1#0D!‘ <%10=‘ +@>‘ .<BA<.+?!‘ +@>‘ 1C><0‘ <0D‘ +@>‘ %<0D!‘ <+‘ ZU@>‘ ?<B>T‘ + B>’ ,>0‘ #%=<.‘ C<001+‘ J +@P @1%D‘ @ ?‘ +. $#+>‘ 1'‘ <DB .<+ 10‘ +1‘ +@ ?‘ #0C10F#>.<$%>‘ ?A . +‘ 0‘ <0‘ >0>BE!‘ J<?+>D‘ $E‘ <%%‘ +@>‘ >K+.>B + >?‘ 1'‘ '<B 0>‘ <0D‘ '<+ =#>’ Q‘ @1‘ D1>?‘ 01+‘ B<.,>%!R‘ @>‘ ?<E?!‘ Q‘ <+‘ +@>‘ $1%D‘ @><.+‘ 1'‘ +@>?>‘ 0' D>%?‘ 0‘ $<++%>!‘ +@> .‘ A.1BA+‘ 1$>D >0C>‘ +1‘ +@> .‘ C@ >'?!‘ +@> .‘ D>KP +>. +E‘ 0‘ +@>‘ J %>?‘ 1'‘ J<.!‘ +@> .‘ A<+ >0C>‘ #0D>.‘ A. P ,<+ 10!‘ <0D‘ #0D<#0+>D‘ A>.?>,>.<0C>‘ 0‘ +@> .‘ A#.P A1?>?‘ 2RT

‘ C .C#B?+<0C>‘ 1CC#..>D‘ 0‘ <‘ ?1.+ >‘ '.1B‘ +@>‘ C +E!‘ 0D C<+ 0=‘ <‘ +.< +‘ 1'‘ C@<.<C+>.‘ J1.+@‘ .>C1.D 0=‘

L‘ *)5 ‘ 1,)%(‘ 5 ‘ ‘ *%!‘ (!‘ FFF! J *% ‘ 5 ‘ ‘ %4 ‘ 1!‘ ,,,L‘ 33!‘ /‘ I!‘ 5) ‘ , , % ‘ 0 !‘ FFF,,!‘ J $ '% ‘ *)‘ 5 ‘ ‘ C FFF,,,!

□□ : ' ' * #

B<?+>.' 1'' +@>' 1.D0<0C>!' .>C> ,>D' +@>' @101#.?' 1'' H0 =@+@11D' '.1B' +@>' @<0D' 1''S 0=' >.D 0<0D T

@>' C + G>0?' 1'' <%<=<!' D ?B<E>D' <+' $>@1%D 0=' +@>' >0>BE' >?+<$@&?@>D' 0' +@> .' D>'>0C>?!' <0D' '< 0+ 0=' #0D>.' >K@<#?+ 10' '.1B' <' ? >=>' J@ C@' @<D' <%.><DE' %<?+>D' B1.>' +@<0' +@.>>' B10+@?!' 01J' $>=<0' +1' B#.P B#.' <+' +@>' 1$?+ 0<CE' 1''+@>' =<.. ?10!' <0D' +1' D>B<0D' <' C<A +#%<+ 10' @> .' B<=<G 0>?' 1''=.< 0' J>.>' >BAP + >D!' <0D' '1.' ?1B>' J>>H?' +@>E' @<D' $>>0' C1BA>%%>D' +1' !D>,1#.' +@>' '%>?@' 1'' @1.?>?!' D1=?!' C<+?!' <0D' >,>0' +@>' $1 %>D' @ D>?' 1''+@>?>' <0 B<%?L' 1.!' 0' D>'<#%+' 1''1+@>.' 0#+. B>0+!' , 0>M%><,>?' D.>??>D' J +@' 1 %!' <0D' %><,>?' 1'' +@>' A<%BM+.>>' A1#0D>D' ' 0>!' <0D' $<H>D' 0+1' <' ?1.+' 1'' C<H>' 0' C10?>F#>0C>' 1'' +@ ?' %1<+@?1B>' <0D' #0M

L' A ' , ') ' 5 ' B ' %$; A) ,(% 5' %(($) ' 0' A ' 1; 3 C1) ' 0' '$)3 B5 ' ,)' 1,); ,)'' ,)' $ 3 %)' B% 0% ' % ' 0%' % ' '%1' %B% ' A%)' A, ' 4C' "%>' 1, G!' 0, %4 (A, ' ,)5 5' ; 0 ')' A ' %$ A , C' 0' %) A ' B , ' ' %' B @' ,)' A ' ,4 % C' 0' A ' (%5 1C' 0' ,)%' (1; 3 5' 4C') ' %)((' :, ', ' % (A, (' 0' A ' $@' 0' 4,) ' %4 $' DI ' ,)' BA,(A' A%' 3 ;)' (%,1 ' A,1 0' A ' 1 , ' 0' A ' ,).),)!' P % $ %' % ,%)%' 1!' .,!' A' / <' 5!' 1%' /I !X' A' BA ' % >' 1 3' , ' 4., $ C' ' ' ' B% %)' %)C' ( )($,)!' A ' % ,%)' A, ,%) ') ,(' A ' $ ' 0' '$)3 B5 ' 1,) ' %' A ' , ' ' 0' A ' , ' B)' 0' G%) ' ,)' $ (%)C' 4C' A ' :) ' ,)' DI/'3 (, C' ( ) 13 %) $

B, A' A ' , ' ' 0' % %'%!' P %>' (A,%. , ' !' ,) !' ,4!' .,,,!' J :$,((,% 5,), ' !' 5K % ,%' 1!' ,,,!' ,4!' .,!X A, ' ,)'$ %' (,)(,5)(' ,)')% ,) ' A%.,)'' A)'4$' , ' ,) ($,K ' B $ 5' 1' ' ,)0 ' 1 '(11)' ,' T)' 0' ' % ' %) ,2$, C!' 8 B; . ' A, ' 1%C' 4 ' A ' B , ' 0' 4 A')% ,) ' % ' %' 5' ,)' ,1; 3$,)'' A ' 0, ' $((0$' $ ' 0' $(A' 1,) ')' %)C' F)5 5' (% ' ' A ' (4 % 5' 3%), A')' ,) ' 5 ' %.% ' BA)' .,)'' $)5 ' :) % . ' 0' * ; 5 .%' ,)' A, ' %,%)' (%13%,') ' %' A '4 ',)),)'' 0' A ' ,F) A' ( ) $ C!' :$,((,% 5,), ' $4, ' $; 3 %! J %$ $' ? .,$ ' ' E, ' %'), ' :) % ., ' ,4!' ,, J ')')% ' 5' %.% %' 1!' .! ,4!' ===E' (' F,,!

J@1%>?1B>‘ D >+!‘ D ?><?>?‘ J>.>‘ >0=>0D>.>DL‘ B#%+ P +#D>?‘ J>.>‘ ?>>0‘ DE 0=‘ <$1#+‘ +@>‘ ?+.>>+?L‘ B<0E‘ D>P ?>.+>D‘ +1‘ +@>‘ A<0 ?@‘ C<BA!‘ ><=>.‘ +1‘ $<.+>.‘ +@> .‘ $$>.+E‘ '1.‘ $.><DL‘ <0D‘ +@>‘ C +E‘ >K@ $ +>D‘ <%%‘ +@>‘ >KP +.>B>?‘ 1'‘ ?F#<% D‘ <0D‘ D ?=#?+ 0=‘ J.>+C@>D0>??!‘ $.>D‘ $E‘ A>?+ %>0C>‘ <0D‘ '<B 0>‘ <B10=‘ <0‘ 1,>.C.1JD>D‘ A1A#%<+ 10‘ @>‘ ?#''>. 0=?‘ 1'‘ +@>‘ C + G>0?‘ ?1'+>0>D‘ +@>‘ ?+>.0‘ @><.+‘ 1'‘ +@>‘ <%C<ED>!‘ <B>+‘ V>%!‘ J@1‘ <+‘ %>0=+@‘ E >%D>D‘ +1‘ +@> .‘ BA1.+#0 + >?!‘ <0D!‘ J +@D.<JP 0=‘ @ ?‘ '1.C>?‘ 0+1‘ +@>‘ >$<%'<.1!‘ C10?>0+>D‘ +@<+‘ +@>‘ <%<=<0?‘ ?@1#%D‘ B<H>‘ +@>‘ $>?+‘ +>.B?‘ +@>E‘ C1#%D‘ J +@‘ +@> .‘ C10F#>.1.

‘ D>A#+<+ 10‘ 1'‘ +@>‘ A. 0C A<%‘ 0@<$ +<0+?!‘ J +@‘ <0‘ >B 0>0+‘ B>.C@<0+‘ 0<B>D‘ %‘ 1.D#K‘ <+‘ +@> .‘ @><D!‘ J<?‘ +@>0‘ D>?A<+C@>D‘ +1‘ +@>‘ @. ?+ <0‘ F#<.+>.?!‘ J +@‘ +@>‘ 1''>.‘ 1'‘ +@>‘ C +E‘ +1‘ C<A +#%<+>‘ 10‘ +@>‘ ?<B>‘ % $>.<% C10D + 10?‘ J@ C@‘ @<D‘ $>>0‘ #0 '1.B%E‘ =.<0+>D‘ $E‘ +@>‘ A<0 <.D?‘ @>‘ H 0=‘ .>'#?>D‘ +1‘ <DB +‘ +@>‘ >B$<??E‘ 0+1‘ @ ?‘ A.>?>0C>!‘ <0D‘ @<#=@+ %E‘ <0?J>.>D‘ +@.1#=@‘ +@>‘ 1BB<0D>.‘ 1'‘ >10!‘ Q‘ +@<+‘ +@>?>‘ +>.B?‘ @<D‘ $>>0‘ +J C>‘ 1''>.>D‘ +1‘ +@>‘ A>1A%>‘ 1'‘ <%<=<!‘ <0D‘ .>">C+>DL‘ +@<+‘ +‘ J<?‘ +11‘ %<+>‘ '1.‘ +@>B‘ +1‘ ?+ A#%<+>‘ C10D + 10?!‘ <0D‘ 01+@ 0=‘ 01J‘ .>B<0>D‘ $#+‘ +1‘ <$ D>‘ $E‘ +@1?>‘ J@ C@‘ @>!‘ <?‘ +@> .‘ C10F#>.1.!‘ ?@1#%D‘ ,1#C@?<'>‘ +1‘ +@>B RT

>.D 0<0D ?‘ <0?J>.‘ ?A.><D‘U=>0>.<%‘ C10?+>.0<+ 10‘ +@.1#=@1#+‘ <%<=<‘ @>‘ 0@<$ +<0+?‘ ?<J‘ +11‘ A%< 0M

L‘ *% 5)) ‘ 8, !‘ 5K 0,2$‘ 0 !‘ 6D!‘ J $ '%‘ *),(%‘ (!‘ 5K 3%') ‘ 1!‘,,,!‘ 3!‘ H ! J‘ F(,,! J 1% 5 G‘ C ‘*% ,>‘ !‘ !‘ ,($ ‘0 !‘ /6!‘ J %5‘ (‘ !‘(!‘ FFF.! C‘)5 %5%‘ 5) ‘ , , % !

%E' +@<+' 01+@ 0=' J<?' +1' $>' @1A>D' '.1B' <0' <AA><%' +1' ?>0+ B>0+?' 1'' @#B<0 +E ' '+>.' <' +#B#%+#1#?' D>P $<+>!' +@>' D>A#+ >?' J>.>' D>?A<+C@>D' <' ?>C10D' + B>' +1' +@>' @. ?+ <0' C<BA!' C@<.=>D' J +@' A.1A1? + 10?' 0' J@ C@' C10C>?? 10' J<?' B 0=%>D' J +@' B>0<C>' @>E' .>A.>?>0+>D' +@<+' +@>' ?>,>.>' .>?A10?>' 1'' S 0=' >.D P 0<0D' +1' +@>' C + G>0?' @<D' .>0D>.>D' +@>B' D>?A>.<+>L' +@<+!' @1J>,>.!' +@>E' J>.>' J %% 0=' +1' .>? =0' +1' 6 B' +@> .'' '1.+ ' C<+ 10?!' +@> .' C +E!' 0' ?@1.+!' +@> .' A.1A>.+E' 1''>,>.E' D>?C. A+ 10!' 10' @ ?' <??#.<0C>' 1''+@> .' A>.?10P <%' ?>C#. +E' <0D' '.>>D1B ' '' @>' .>'#?>D' +@ ?!' +@>E' J1#%D' +<H>' +@> .' @. ?+ <0' C<A+ ,>?!' <B1#0+ 0=' +1' ' ,>' 1.' ? K' @#0D.>D!' '.1B' +@>' D#0=>10?' 0' J@ C@' +@>E' %<E!' <0D' @<0=' +@>B' % H>' D1=?' 1,>.' +@>' $<++%>P B>0+?' L' <0D' +@>0!' A%<C 0=' +@> .' 1%D' B>0!' J1B>0!' <0D' C@ %D.>0!' 0' +@>' '1.+.>??!' +@>E' J1#%D' ?>+' ' .>' +1' +@>' +1J0!' <0D' C#+' <' J<E' '1.' +@>B?>%,>?' +@.1#=@' +@> .' >0>B >?!' 1.' '<%%' 0' +@>' <++>BA+' 1!R' +@>E' C10+ 0#>D!' Q' ''E1#' =< 0' ◁M, C+1.E!' +' ?@<%%' $>' ?#C@' <' 10>' <?' ?@<%%' B<H>' +@>' 0<B>' 1'' <%<=<' . 0=' +@.1#=@P 1#+' +@>' J1.%D!' <0D' +1' <=>?' E>+' #0$1.0ZR' >.D P 0<0D!' #0B1,>D' $E' +@>?>' B>0<C>?!' C11%%E' .>A% >D' +@<+' @>' ?<J' 01' 1CC<? 10' +1' C@<0=>' @ ?' '1.B>.& D>P +>.B 0<+ 10'L' $#+' +@>E' B =@+' .>?+' <??#.>D!' '' +@>E' @<.B>D' <' ? 0=%>' @< .' 1'' <' @. ?+ <0!' @>' J1#%D' A#+' >,>.E' ?1#%' 0' +@>' A%<C>!' B<0!' J1B<0!' <0D' C@ %D!' +1' +@>' ?J1.D

@>' <0K 1#?' A>1A%>!' J@1' +@.10=>D' '1.+@' +1' B>>+' +@>' >B$<??E' 10' +?' .>+#.0' +1' +@>' C +E!' J>.>' 1,>.P J@>%B>D' J +@' +@>' D>>A>?+' =%11B' <+' +?' 1B 01#?' + DM

0=?‘ @> .‘ ‘<+>‘ J<?‘ 01J‘ ?><%>D‘ , >. E‘ <, >0#>‘ +1‘ @1A>‘ ?>>B>D‘ C%1?>D‘ $E‘ +@>‘ ?+>.0‘ .>?A10?>‘ 1‘‘ +@>‘ , CP +1. ‘ >+‘ @1A>‘ J %%‘ ?+ %%‘ % 0=>.!‘ <0D!‘ <%+@1#=@‘ +@>.>‘ J>.>‘ ?1B>‘ ‘.<0+ C‘ >01#=@‘ +1‘ #.=>‘ +@>‘ >K>C#+ 10‘ 1‘‘ +@> .‘ D>?A>.<+>‘ B>0<C>?!‘ +@>‘ =.><+>.‘ 0#B$>.‘ 1‘‘ +@>‘ 0@<$ +<0+?!‘ <0D‘ <B10=‘ +@>B‘ +@1?>‘ B1?+‘ C10? D>.P <$%>‘ ‘1.‘ J><%+@‘ <0D‘ 0‘%#>0C>!‘ A.>‘>..>D‘ +@>‘ C@<0C>‘ 1‘‘ >.D 0<0D ?‘ C%>B>0CE!‘ +1‘ C>.+< 0‘ ..>+. >,<$%>‘ .# 0

1.‘ +@>‘ %<?+‘ + B>!‘ +@>.>‘1.>!‘ +@>‘ D>A#+ >?‘ ??#>D‘ ‘.1B‘ +@>‘ =<+>?‘ 1‘‘ +@>‘ C +E!‘ C@<.=>D‘ J +@‘ <0‘ >A ?+%>‘ +1‘ +@>‘ ?1,>.> =0?‘ ‘.1B‘ +@> .‘ #0‘1.+#0<+>‘ C1#0+.EB>0!‘ 0‘ J@ C@!‘ <‘+>.‘ D>A.>C<+ 0=‘ +@> .‘ <0=>.!‘ <0D‘ %< B>0+P 0=‘ +@> .‘ 1J0‘ $% 0D‘ 1$?+ 0<CE!‘ +@>E‘ .>B 0D>D‘ +@> .‘ @ =@0>??>?‘ 1‘‘ +@>‘ % $>.<%‘ +>. B?‘ J@ C@‘ +@> .‘ <0C>?+1.?‘ @<D‘ =.<0+>D‘ +1‘ 1.D1,<!‘ 0+>F#>.<!‘ <0D‘ 1+@>.‘ C + >?!‘ <‘+>.‘ <‘ D>‘>0C>‘ <?‘ A>.+ 0<C 1#?‘ <?‘ +@> .‘ 1J0‘ @>E‘ >KA<+ <+>D‘ 10‘ +@>‘ ‘<B>‘ J@ C@‘ +@>‘ ?1,>.> =0?‘ @<D‘ >?+<$% ?@>D‘ $E‘ +@>‘ =>0>.1#?‘ A1% CE‘ 1‘‘ +@> .‘ A<?+‘ C10P F#>?+?!‘ <0D!‘ <AA><% 0=‘ +1‘ +@> .‘ B<=0<0 B +E!‘ C10P C%#D>D‘ J +@‘ ?#$B ++ 0=‘ +@>B?>%,>?!‘ +@> .‘ ‘<B % >?!‘ <0D‘ +@> .‘ ‘1.+#0>?!‘ +1‘ +@> .‘ D ?A1?<%‘ J>0+E‘ 1‘‘ +@>‘ A. 0C A<%‘ C + G>0?‘ J>.>‘ +@>0‘ D>% ,>.>D‘ #A‘ <?‘ @1?+<=>?‘ ‘1.‘ +@>‘ A><C><$%>‘ D>B><01#.‘ 1‘‘ +@>‘ C +E‘ #0+ %‘ +?‘ 1CC#A<+ 10‘ $E‘ +@>‘ A<0 <.D?‘ Q‘ @#?!R‘ ?<E?‘ +@>‘ C#.<+>‘ D>‘ %1?‘ 5<%<C 1?!‘ Q‘ D D‘ +@>‘ %B =@+E‘ @<.D>0‘ +@>‘ @><.+?‘ 1‘‘ +@>?>‘ @><+@>0!‘ % H>‘ +1‘ +@1?>‘ 1‘‘ +@>‘ =EA+ <0?!‘ 0‘ 1.D>.‘ +@<+‘ +@>E‘ B =@+‘ .>C> ,>‘ +@>‘ ‘#%%‘ J<=>?‘ 1‘‘ +@>‘ B<0 ‘1%D‘ 1AA.>?? 10?‘ J@ C@‘ +@>E‘ @<D

‘ &&‘

J .1#=@+‘ 10‘ @ ?‘ A>1A%>‘ '.1B!‘ +@>‘ D<E?‘ 1''‘ S 0=‘ 1D>M‘ . C‘ +1‘ +@>‘ A.>?>0+‘ + B>‘ZRT

0X+@C <AA1 0+>D‘ D<E!‘ +@>‘ 1B B<0D>.‘ 1''‘ >10‘ .1D>‘ +@.1#=@‘ +@>‘ =<+>?‘ 1''‘ <%<=<‘ <+‘ +@>‘ @><D‘ 1''@ ?‘ J>%%M<AA1 0+>D‘ C@ ,<%.E!‘ <0D‘ +11H‘ A1??>?? 10‘ 1''+@>‘ <%C<G<$<‘ 1.‘ %1J>.‘ C +<D>%‘ >‘ +.11A?‘ J>.>‘ +@>0‘ A1?+>D‘ 1A‘ +@> .‘ .>?A>C+ ,>‘ ?+<+ 10?‘ <%10=‘ +@>‘ '1.+ ' M‘ C<+ 10'!!<0D‘ +@>‘ $<00>.?‘ 1''‘ @. ?+ <0‘ A< 0‘ +. #BA@P <0+%E‘&#0'#.%>D‘ '.1B‘ +@>‘ +1J>.?‘ 1''+@>‘ C +E‘ J@>.>‘ +@>‘ C.>?C>0+‘ @<D!‘ $>>0‘ D ?A%<E>D‘ '1.‘ <0‘ #0 0+>..#A+>D‘ A>. 1D‘ 1''0>B%E‘ > =@+‘ C>0+#. >?

@>‘ ' .?+‘ <C+‘ J<?‘ +1‘ A#. 'E‘ +@>‘ +1J0‘ '.1B‘ +@>‘ 0#B>.1#?‘ D><D‘ $1D >?‘ <0D‘ 1+@>.‘ 1''>0? ,>‘ B<++>.‘ J@ C@‘ @<D‘ <CC#B#%<+>D‘ D#. 0=‘ +@ ?‘ %10=‘ ? >=>!‘ <0D‘ %<E‘ '>?+>. 0=‘ 0‘ +@>‘ ?+.>>+?!‘ A1 ?10 0=‘ +@>‘ <+B1?A@>.>‘ @>‘ A. 0C A<M‘ B1?F#>‘ J<?‘ 0>K+‘ C10?>C.<+>D‘ J +@‘ D#>‘ ?1%>B0 +E‘ +1‘ +@>‘ ?>., C>‘ 1''‘ <0+<‘ <. <‘ D>‘ %<‘ 0C<.0<C 10‘ .1??>?‘ <0D‘ @>%%?!‘ +@>‘ ?EB$1%?‘ 1''‘ @. ?P + <0‘ J1.?@ A!‘ J>.>‘ D ?+. $#+>D‘ 0‘ A.1'#? 10‘ <B10=‘ +@>‘ ?<C.>D‘ >D ' C>?!‘ TT‘ J@>+>!R‘ ?<E?‘ +@>‘ C<+@1% C‘ C@.10 P C%>.‘ %<?+‘ F#1+>D!‘ Q‘ +@>‘ C>%>?+ <%‘ B#? C‘ 1''+@> .‘ C@ B>?

L‘ $ '% ‘ (! F(,,,!‘ J‘ *% >‘ 5)) !‘ 8, !‘ 5K 0 ,2$‘ ‘ 5K >‘ 3%') ‘ 1!‘ ,,,!‘ 3!‘ H !‘ A‘ %4,(‘A, ,%) ‘ % ‘ A%‘ %; %'%‘ B%‘ 4 %C 5‘ 4C‘ ,‘ >‘ 5$F‘ BA‘ %51, 5‘ A‘ 3%;),% 5‘ ,) ‘ A‘ (% ‘BA, ‘ A‘ (, ,G) ‘B ‘5 4% ,) '‘)‘ 5,;)%)5M‘ 1 !‘ P ‘*)5‘ 1!‘ 5‘ ‘ %4 ‘ 1!‘ ,,,!‘ (! FFF,F!X S A‘ ‘ 0‘ A‘ ,)A%4, %)

2$ 5‘%‘) ' A‘4C‘ $ '% ‘B $ 5‘ 1‘ ‘4‘ %‘ 0$%,)‘ 0‘ A, !‘)5‘C ‘ A ‘% ‘ ' 5‘ ' ,15‘ 0 ‘ $ 3 (,) '‘0% ‘ 3 %C‘)‘ A‘ 3% ‘ 0‘ A ‘%14% %5 ‘ 5$F‘ ,)(‘ A ‘*% , ,%)‘B , ‘%51,‘ A%‘A‘B%‘ F 13 5‘B, A‘0 ; C‘ 0‘A, ‘0 ,)5 ‘0 1‘ A ‘5 1‘ 0‘ %. C‘%)5‘0 0 , $ ‘ 0‘3 ; 3 C‘ 3% 5‘ $3)‘ A, ‘ 0 B>‘ (, ,G) !

?1#0D 0=‘ <+‘ >,>.E‘ @1#.‘ 1’‘ +@>‘ D<E‘ <0D‘ 0 =@+!‘ C<#?>D A>.A>+#<%‘ +1.B>0+‘ +1‘ +@>‘ ><.?‘ 1’‘+@>‘ 0’ D>% RT

0‘ +@>‘ 4+@‘ D<E‘ 1’‘ #=#?+!‘ $> 0=‘ ?1B>J@<+‘ B1.> +@<0‘ +@.>>‘ B10+@?‘ ’ 1B‘ +@>‘ D<+>‘ 1’‘ A>0 0=‘ +@> +.>0C@>?!‘ >.D 0<0D‘ <0D‘ ?<$>%%<‘ B<D>‘+@> .‘>0+.<0C> 0U1‘ +@>‘ C10F#>.>D‘ C +E!‘ <++>0D>D‘ $E‘ +@>‘ C1#.+!‘ +@> C%>.=E!‘ <0D‘ +@>‘ J@1%>‘ 1+‘ +@> .‘ B % +<.E‘< +<ET‘ @> A.1C>?? 10‘ B1,>D‘ 0‘ ?1%>B0‘ ?+<+>‘ #A‘ +@’>‘ A. 0C A<% ?+.>>+?!‘ 01J‘D>?>.+>D!‘ <0D‘ @#?@>D‘ 0‘1B 01#?‘? %>0C>!‘ +1‘ +@>‘ 0>J‘C<+@>D.<% 1’‘ +‘ <.E!‘ J@> ’>‘ B<??‘ J<?‘ A>.’1.B>DL‘ <0D‘ <?‘ +@>‘ =%1. 1#?‘ <0+@>B‘ 1’‘+@>‘ #‘ $ ‘ .1?>‘ ’1.‘ +@>‘ ’.?+‘ + B>‘ J +@ 0‘ +?‘ <0C >0+‘ J<%%?!‘ +@>‘ ?1,>.> =0?!‘ +1=>+@>.‘ J +@‘ +@>‘ J@1%>‘ <.BE!‘ A.1?+.<+>D‘ +@>B?>%,>?‘ 0‘ =.<+>’#%‘ <D1.<+ 10‘ 1’‘ +@>‘ 1.D‘1’‘ 1?+?!‘ J@1‘@<D‘ +@#?‘ .> 0?+<+>D‘+@>B‘ 0‘+% >‘ D1B< 0?‘1’‘+@> .‘<0C>?+1.?

@>‘ B1?+‘ <’’>C+ 0=‘ 0C D>0+‘ J<?‘ <’’1.D>D‘ $E‘+@>‘ B#%+ +#D>‘ 1’‘ @. ?+ <0‘ C<A+ ,>?‘ J@1‘ J>.>‘ .>?C#>D‘ ’.1B‘ +@>‘ 11. ?@‘ D#0=>10?’ @>E‘ J>.>‘ $.1#=@+‘ $>’1.>‘+@>‘?1,>.> =0?‘ J +@‘+@> .‘% B$?‘@><, %E‘ B<0<P C%>D!‘ +@> .‘ $><.D?‘ D>?C>0D 0=‘ +1‘ +@> .‘ J< ?+?!‘ <0D‘ +@> .‘ ?<%%1J‘ , ?<=>?‘ >B<C <+>D‘ $E‘ C<A+ , +E‘ <0D‘ ’<P B 0>’ ,>.E‘ >E>‘ J<?‘ ?#’’#?>D‘ J +@‘ +><.?‘ <+‘ +@>‘ ?A>C+<C%>‘ ‘ B<0E‘.>C1=0 G>D‘ +@> .‘<0C >0+‘ ’. >0D?!‘ 1’‘ J@1?>‘ ’<+>‘+@>E‘ @<D‘ %10=‘ $>>0‘ =01.<0+’ 1B>‘@<D‘ % 0=>.>D‘ 0‘C<A+ , +E‘+>0‘1.‘ ’ ’+>>0‘E><.?!‘ <0D‘ <B10=‘ +@>B‘ J>.>‘?>,>.<%‘ $>%10= 0=‘ +1‘ +@>‘ $>?+‘ ’<B % >?‘ 0‘ A< 0’ 0‘ >0+>. 0=‘ +@>‘ A.>?>0C>!‘ +@>E‘ J1#%D‘ @<,>

L‘)% 5 G‘ 8, ‘ 5‘ ‘ C ‘ *% ,(‘ !‘ (!‘ FFF.!

+>?+ ' >D‘ +@> .‘ =.<+ +#D>‘ $E‘ +@.1J 0=‘ +@>B?>%,>?‘ <+‘ +@>‘ '>>+‘ 1'‘ +@>‘ ?1,>.> =0?L‘ $#+‘ +@>‘ %<++>.!‘ .< ? 0=‘ +@>B‘ #A!‘ <0D‘ B 0=% 0=‘ +@> .‘ +><.?‘ J +@‘ +@1?>‘ 1'‘+@>‘ % $>.<+>D‘ C<A+ ,>?!‘ C<#?>D‘ +@> .‘ '>++>.?‘ +1‘ $>‘ .>B1,>D!‘ <0D!‘ <'+>.‘ <DB 0 ?+>. 0=‘ +1‘ +@> .‘ 0>C>?? + >?!‘ D ?B ??>D‘ +@>B‘ J +@‘ % $>.<%‘ A.>?>0+? T

@>‘ '1.+.>??‘ 1'‘ >$<%'<.1‘ ?#..>0D>.>D‘ 10‘ +@>‘ D<E‘ <'+>.‘ +@>‘ 1CC#A<+ 10‘ 1'‘ <%<=<‘ $E‘ +@>‘ A<0 <.D?‘ @>‘ =<%%<0+‘ V>=.‘ C@ >'+< 0!‘ <B>+‘ V>% !‘ J<?‘ %1<D>D‘ J +@‘ C@< 0?L‘ <0D‘ $> 0=‘ <?H>D‘ J@E‘ @>‘ @<D‘ A>.? ?+P >D‘ ?1‘ 1$?+ 0<+>%E‘ 0‘ @ ?‘ ‘ $1%D%E‘ <0?J>.>D!‘ Q‘ >C<#?>‘ ‘ J<?‘ C1BB ?? 10>D‘ +1‘ D>'>0D‘ +@>‘ A%<C>‘ +1‘ +@>‘ %<?+‘ >K+.>B +EL‘ <0D‘ '‘ ‘ @<D‘ $>>0‘ A.1A>.%E‘ ?#AP A1.+>D!‘ ‘ J1#%D‘ @<,>‘ D >D‘ ?110>.‘ +@<0‘ ?#..>0D>.‘ 01JZR

@>‘ D11B‘ 1'‘+@>‘ ,<0F# ?@>D‘ J<?‘ 01J‘ +1‘ $>‘ A.1P 01#0C>D‘ 0‘ >0+>. 0=‘ +@>‘ C +E!‘ 1.D>.?‘ @<D‘ $>>0‘ ??#>D‘ +1‘ +@>‘ A<0 ?@‘ ?1%D >.E!‘ A.1@ $ + 0=‘ +@>B‘ #0P D>.‘ +@>‘ ?>,>.>?+‘ A>0<%+ >?‘ '.1B‘ B1%>?+ 0=‘ > +@>.‘ +@>‘ A>.?10?‘ 1.‘ A.1A>.+E‘ 1'‘ @>‘ 0@<$ +<0+?‘ ‘ @>?>‘ %<++>.‘ J>.>‘ D .>C+>D‘ +1‘ .>B< 0‘ 0‘ +@> .‘ .>?A>C+ ,>‘ B<0? 10?‘ J +@‘ <‘ =#<.D‘ ?>+‘ 1,>.‘ +@>B!‘ J@ %>‘ +@>‘ C.<, 0=?‘ 1'‘ <AA>+ +>‘ J>.>‘ ?#AA% >D‘ $E‘ <‘ % $>.<%‘ D ?+. $#+ 10‘ 1'‘ '11D‘ +‘ %>0=+@!‘ +@>‘ J@1%>‘ A1A#%<+ 10‘ 1'‘ +@>‘ C +E!‘ C1BA.>@>0D 0=‘ >,>.E‘ <=>‘ <0D‘ ?>K!‘ J<?‘ C1BB<0D>D‘ +1‘ .>A< .‘ +1‘ +@>‘ =.><+‘ C1#.+ME<.D‘ 1'‘ +@>‘ <%C<G<$<!‘ J@ C@‘ J<?‘ 1,>.%11H>D‘ 10‘ <%%‘ ? D>?‘ $E‘ %1'+E‘ .<BA<.+?

c‘ <.$<''<%!‘ J@1?>‘ B><=.>‘ <0P 0<%?‘ @<,>‘ ?C<.C>ME‘ <0E‘ B>.‘ +‘ $>P E10D‘ +@<+‘ 1'‘ <‘ B>.>‘ C@.101%1P = C<%‘ +<$%>!‘ A1?+A10>?‘ +@>‘ ?#.P

)5 ‘ , ‘ 3 14 !‘ ‘ %) ‘ I/!‘ J‘ % 1 ‘ 4 ‘ 5‘ ‘ , (‘ ,4!‘ ,!‘ (!‘ F,.!

=<.. ?10>D $E +@> A<0 ?@ ?1%D >.E 1 +@ ? A%<C>!
+@> ?C>0> 1' B<0E < 11. ?@ +. #BA@! J@>.> +@>
?A1 % 1' +@> $1.D>. '1.<E @<D $>>0 1'+>0 D ?A%<E>D!
<0D J@ C@ ?+ %% B =@+ $> >B$%<G10>D J +@ +@>
+.1A@E 1' B<0E < @. ?+ <0 $<00>.! +@> A>1A%> 1'
 <%<=< 01J D .>C+>D +@> . ?+>A? ? +@> B#%+ +#D>
?J<. B>D +@.1#=@ +@> ?+.>>+?! ' %%>D J +@ $1D 0= <AP
A.>@>0? 10?1'+@> . ''<+>! +@>E J .#0=+@> .@<0D?! <0D!
.< ? 0= +@> . >E>?+1 @><,>0!#++>.>D +@> B1?+ A +>1#?
%<B>0+<+ 10? Q @! <%<=<R+@>E C. >D! Q.>01J0>D
<0D $><#+ '#% C +E! @1J <.> +@E ?10? <$1#+1 '1.?<H>
+@>>Z 1#%D 01+ +@E ?1 %! 10 J@ C@ +@>E ' .?+ D.>J
$.><+@! $> ?#''>.>D+1 C1,>. +@>B 0 D><+@Z @>.>
? 01J +@> ?+.>0=+@ 1' +@E +1J>.?! J@>.> +@> $><#+E
1' +@E >D ' C>?Z @> ?+.>0=+@ 1' +@E J<%%?! <%<?Z
C1#%D 01+ <,< % +@E C@ %D.>0! '1. +@>E @<D ?1.>%E D ?P
A%><?>D +@> . .><+1. @<+ ?@<%% $>C1B> 1'+@E 1%D
B>0 <0D +@E B<+.10?! 1. 1' +@E E1#0= B< D>0?
D>% C<+>%E 0#.+#.>D J +@ 0 +@E @<%%?! J@>0 +@>E ?@<%%
N'>>% +@> .10 E1H> 1' $10D<=>2 <0 +@E $<.$<.1#?
C10F#>.1.? J +@1#+ .>B1.?> +@#? +><. <?#0D>. +@>
D><.>?+ +>? 1' % '>2R #C@ <.> +@> B>%<0C@1%E
?+.< 0?! 0 J@ C@ +@> <?+ % <0 C@.10 C%>. @<? = ,>0
#++>.<0C> +1 +@> ?1..1J? 1'+@> C<A+ ,> C +E T

L 5% *),(% 5 ; BA,(A B% ,)0 ,(5 4C A 1
 ,4! E (! =E 0$ ' % 3 BA 5, (A%,' 5
 %($) 3% A %4 . 3 ,) 5 5 % A (,1,)%
( ) B . *A , ,%)) ; $) , A F3, 5 F15 3 % 5
'%5 0 $)5 ,) A (, C B B $)5 !)$14 0 %3 5
 %) 0,F 5 B, A (%) 2 ? B B % A %1 ,1 ( );
,# # & % 4% 4% $ 3$), A; 5 1) 5 A 0%1 ! Z A [
1) 5 ,. 5 0 1 A %C % A 4% (% Y B A

4 ‘ ‘ I

@>‘ D.><D'#%‘ D11B‘ 1'‘ ?%<,>.E‘ J<?‘ D>01#0C>D‘ 10‘ +@>‘<??>B$%>D‘ B#%+ +#D>‘ 0>M+@ .D‘ J<?‘ +1‘$>‘+.<0?P A1.+>D‘ 0+1‘ '. C<‘ 0‘ >KC@<0=>‘ '1.‘ <0‘ >F#<%‘ 0#B$>.‘ 1'‘ @. ?+ <0‘ C<A+ ,>?‘ D>+< 0>D‘ +@>.>L‘ <0D‘ <%%!‘ J@1‘ @<D‘ .D<+ ,>?‘ 1.‘ '. >0D?‘ 0‘ +@ ?‘ A.>D C<B>0+!‘ J>.>‘ .>F# .>D‘ +1‘ '#.0 ?@‘ <‘ ?A>C ' C<+ 10‘ 1'‘ +@>B ‘ 01+@>.‘ +@ .D‘ J<?‘ <AA.1A. <+>D‘ +1‘ .> B$#.?>‘ +@>‘ ?+<+>‘ '1.‘ +@>‘ >KA>0?>?‘ 1'‘ +@>‘ J<.‘ @>‘ .>B< 0D>.‘ J<?‘ +1‘$>‘D ?P +. $#+>D‘ <?‘ A.>?>0+?‘ <+‘ @1B>‘ <0D‘ <$.1<D‘ @#?!‘ 10>‘ @#0D.>D‘ 1'‘ +@>‘ '%1J>.‘ 1'‘ +@>‘ '. C<0‘ J<.. 1.?‘ +,>.>‘ ?>0+‘ +1‘ +@>‘ A1A>!‘ J@1‘ 0C1.A1.<+>D‘ +@>B‘ 0+1‘ @ ?‘ =#<.D!‘ <0D‘ C10,>.+>D‘ +@>B‘ <%%‘ 0‘ +@>‘ C1#.?>‘ 1'‘ +@>‘ E><.!‘ ?<E?‘ +@>‘ C#.<+>‘ D>‘ %1?‘ 5<%<C 1?!‘ 0+1‘ ,>.E‘ =11D‘ @. ?+ <0?‘ '+E‘1'‘+@>‘ B1?+‘$><#+ '#%‘ 11. ?@‘ = .%?‘ J>.>‘ A.>?>0+>D‘ $E‘ ?<$>%%<‘ +1‘ +@>‘ I#>>0‘ 1'‘ <A%>?!‘ +@ .+E‘ +1‘ +@>‘ I#>>0‘ 1'‘ 51.+#=<%!‘ 1+@>.?‘ +1‘ +@>‘ %<D >?‘ 1'‘ @>.‘ C1#.+L‘ <0D‘ +@>‘ .>? D#>‘ 1'‘ $1+@‘ ?>K>?‘ <AA1.+ 10>D‘ <B10=‘ +@>‘ 01$%>?!‘ C<,<% >.?!‘ <0D‘ 0'>. 1.‘ B>B$>.?‘ 1'‘ +@>‘ <.BE!‘ <CC1.D 0=‘ +1‘ +@> .‘ .>?A>C+ ,>‘ .<0H‘ <0D‘ ?>.. C>? T

?‘ +‘ J<?‘ <AA.>@>0D>D‘ +@<+‘ +@>‘ <%<=<0?!‘ .>0P D>.>D‘ D>?A>.<+>‘ $E‘ +@>‘ A.1?A>C+‘1'‘<‘ @1A>%>??!‘ 0+>.P B 0<$%>‘ C<A+ , +E!‘ B =@+‘ D>?+.1E‘ 1.‘ ?>C.>+>‘ a+@> .‘ ">J>%?!T‘ A%<+>!‘ <0D‘ 1+@>.‘ A.>C 1#?‘ >''>C+?!‘ 0‘ @ C@‘ +@ ?‘ J><%+@E‘ C +E‘ <$1#0D>D!‘ .<+@>.‘ +@<0‘ ?#''>.X+@>B‘ +1‘ '<%%‘ 0+1‘ +@>‘ @<0D?‘ 1'‘ +@> .‘ >0>B >?!‘ >.D 0<0D‘ D>, ?>D‘ <‘ A1% + C‘ >KA>D >0+‘ '1.‘ A.>,>0+ 0=‘ + ‘ >

0 ‘ %)5‘ $1,)%,) ‘ 1 ‘ L‘ $ '% ‘ $4,‘ $3 %!‘ J‘ *$ %‘ ' % 0$‘ ‘ A‘ (% A ,(‘ 3, C‘ 0‘ 5‘ ‘ % %(, ‘ ! $4,‘ $3 %‘ $‘ . ,') -[‘ 4% (%‘ C ‘ J ‘ % C ‘ 3$‘ 3, !‘ 3!‘ 5‘ %') 1!‘,,!‘ C!‘FFF!‘(!,,,!‘ F,,,!

A>1A%>' '1.' <' D ?A%<E' 1'' @>.1 ?B' J@ C@' ?@1#%D' @<,>'
>KC +>D' <DB .<+ 10' 0' >,>.E'=>0>.1#?' $1?1B ' +' J<?'
1$, 1#?%E' B1?+' .>A#=0<0+' +1' ?<$>%%< ?' 0<+#.<%' D ?A1M'
?+ 10U' <0D' B#?+' $>' <DB ++>D' +1' %><,>' <' ?+< 0' 10' @>.'
B>B1.E!' J@ C@' 01' C1%1#. 0=' 1'' @ ?+1.E' C<0' C10C><%'
+' B<E' ' 0D' ?1B>' A<%% <+ 10!' @1J>,>.!' 0' +@>' $ =1+.E'
1'' +@>' <=>!' +@>' B1.>' >KC#?<$%>' 0' <' J1B<0!' J@1B'
>D#C<+ 10!' =>0>.<%' >K<BA%>!' <0D' 0<+#.<%' D ?+.#?+' 1''
@>.?>%'!' <CC#?+1B>D' +1' .>%E!' 0' B<++>.?' 1''C10?C >0C>!'
10' ?A . +#<%' =# D>?!' J@1?>' A >+E' <0D' A.1'>?? 10<%
%><.0 0=' ?>>B>D' +1' @<,>' F#<% ' >D' +@>B' '1.' +@>' +.#?+'
,>0' 0' +@ ?' ,>.E' +.<0?<C+ 10!' ?@>' '>%%' '<.' ?@1.+' 1''
+@>'?#==>?+ 10?' ('?1B>' 1''@>.' C1#0?>%%1.?!' J@1'#.=>D'
@>.' +1' A#+'>,>.E' 0@<$ +<0+!' J +@1#+'>KC>A+ 10!' +1' +@>'
?J1.D'L' J@ C@' +@>E'<'' .B>D' J1#%D' $>' <"#?+' .>F# +<%
1''+@> .' 1$?+ 0<+>' ' <0D' J1#%D' A.1,>' <' J@1%>P
?1B>' J<.0 0=' +1' 1+@>.?'Z >' <.>' 01+' +1%D' J@1' +@>'
<D, ?>.?' 1'' +@ ?' A.>C 1#?' B><?#.>' J>.>L' $#+X+@>'
J@1%>' >KA>. >0C>' 1'' +@ ?' .> =0' ?@1J?!' +@<+' J>' ?@<%%
?C<.C>%E' J.10=' +@>' C%>.=E' B#C@!' $E' B"A#+ 0=' +' +1'
+@>B ' @<+' +@> .' <.=#B>0+?' C1#%D' J<.A' ?1' >0% =@+P
>0>D' <' B 0D' <?' +@<+' 1'' ?<$>%%<' '.1B' +@>' 0<+#.<%
A. 0C A%>?' 1'' "#?+ C>' <0D' @#B<0 +E!' '#.0 ?@>?' <' .>P
B<.H<$%>' A.11'' 1'' +@>' <?C>0D<0CE' J@ C@'+@>' A. >?+P
@11D' #?#.A>D' 1,>.' +@>' B1?+' = '+>D' 0+>%%>C+?!' <0D' 1''
+@> .' =.1??' <$#?>' 1'' +!' $>'1.>' +@>' >'1.B<+ 10!' $E'
$.><H 0=' +@>' ?><%?' ?>+' 10' +@>' ?<C.>D' ,1%#B>!' 1A>0>D'
+1' B<0H 0D'+@>' #0C1..#A+>D'C@<00>%' 1''D , 0>' +.#+@ T

Q' 1%5 G' 8, ' 5' ' *),(% 5' ' ' ,4!' .!'
C ' !' (! FFF.,,! J 5% (!F.!' ‖

@>' '<+>' 1'' <%<=<' B<E' $>' ?< D' +1' @<,>' D>C D>D' +@<+' 1'' .<0<D<' @>' %<++>.' J<?' 01J' ?@#+' 1#+' '.1B' +@>' B1?+' BA1.+<0+' A1.+?' <%10=' @>.' C1<?+L' <0D' ?@>' J<?' >0, .10>D' 10' >,> E' A1 0+' 1''@>.' +>.. +1.E' $E' @>.' J< % H>' '1>!' ?1' +@<+' ?@>' C1#%D' @<.D%E' @1A>' B1.>' '.1B' ?#$?>F#>0+' >''1.+?!' @1J>,>.' ?+.>0#1#?' <0D' #0 +>D!' +@<0' +1' A1?+A10>' +@>' 0>, +<$%>' @1#.' 1'' D ??1%#+ 10 ' @>' C.#>%' +.><+B>0+' 1'' <%<=<' J<?' +@>' A.>%#D>' +1' +@>' %10=' ?>. >?' 1'' A>.?>C#+ 10?' J@ C@' <J< +>D' +@>' J.>+C@>D' 1?%>B?' 0' +@>' %<0D' 1''+@> .' <0C>?+1.?!' 0' +@<+' %<0D!' 1,>.' J@ C@' +@>' Q' ?+<.' 1'' ?%<B ?B!R' +1' $1..1J' +@> .' 1J0' B>+<A@1.!' @<D'?@10>' 0' '#%%' $. =@+P 0>??' '1.' 0><.%E' > =@+' C>0+#. >?!' $#+' J@>.>' +' J<?' 01J' '<?+' D>?C>0D 0=' <B D' C%1#D?' <0D' +>BA>?+?' +1' +@>' @1. G10

@>' ' .?+' C<.>' 1'' +@>' ?1,>.> =0?' J<?' D .>C+>D' +1P J<.D?' .>A>1A% 0=' +@>' D>A1A#%<+>D' C +E' J +@' +@> .' 1J0' ?#$">C+?' 1#?>?' <0D' %<0D?' J>.>' '.>>%E' =.<0+>U' +1' ?#C@' <?' J1#%D' ?>++%>' +@>.>' #B>.1#?' +1J0?' <0D' , %%<=>?!' J +@' <' J D>' C .C# +' 1''+>.. +1.E!' J>.>' A%<C>D' #0D>.' +?' C , %"#. ?D C+ 10!' <0D' +' J<?' B<D>' +@>' @><D' 1'' <' D 1C>?>' >B$.<C 0=' B1?+' 1'' +@>' .>C>0+' C10F#>?+?

4 $' ' , A'? B 'B ' %) 1 5'4C'%' B % AC' % , ' 0' *% , ' 0 ' / ' 5 4 %' 0' ' 5!' ' 3 0' A%' A '? B, A' (@' B%') ' BA,(A' A ,. 5' %1,5 ' 3 ($,)! ' , ' (% (C' 3 ,4 ' A%' A ' (, ($1 %) ,%' $ '%' A $ 5' A%. ' 1, 5') ,(' ',13 ; %) ' %' 0%(' %' A ' (A 1 ' 0' A ' , A' %) 1 ' A%5' , ' ((($,> 5!' ' , ' 1 ',13 4%4 ' A%' A ' A) ' ($ % ' 5 ' ' % %(, ' A $ 5' A%. ' 0%4 ,(% 5' , !')C') ' BA ' % 13 ' ' ( )(, ' A ' 5, (3%)(, ' 0' ( ) 13 % C' A, ,%) ' .) ' B, ' A%. ' 5' 0 5K' F(%; 1% ,)' 'A, ')' 8 %('4 $'A' 'A, '1,)5')' ,1 '%>5%C< Y A-' %5' 1 ') ' A, C' 0 ' A%' ' @) B' ' 4 '0% ![

0 +@> ?1#+@ <0D J>?+ 1 .<0<D< @>?> 0D#C>P B>0+?! C1B$ 0>D J +@ +@> 0<+#.<% <D,<0+<=>? 1 A1P ? + 10 <0D C .<<+>! ?110 C<#?>D +@> + D> 1 @. ?+ <0 A1A#%<+ 10 +1 '%1J 0+1 +@> D>?>.+>D C +E $#+ + J<? ,>.E %10= $>'1.> + <=< 0 .><C@>D +@> D>=.>> 1 C1BP B>.C <% C10?>F#>0C> +1 J@ C@ + @<D $>>0M.< ?>D $E +@> 1+,.?T

'+>. +@>?> ?<%#+<.E <..<0=>B>0+?! +@> A<0 ?@ ?1,>.> =0? %>D $<CH +@> . , C+1. 1#? %>= 10? 0 +. #BA@ +1 1.D1,<! J@>0C> D ?A>.? 0= +1 +@> . ,<. 1#?U@1B>?! +@>E A.>A<.>D! $E <J 0+>. ? .>A1?>! '1. 0>J C<BA< =0? <0D B1.> $. %% <0+ C10F#>?+?

W $ '% *)5 C *% ,((! (,!

5 ‘ ;

‘ ‘ O I ‘ ‘ V O ‘
‘ ‘ V

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‘ +@>‘ <#+#B0‘ 1’‘ 649!‘ >.D 0<0D‘ <0D‘ ?<$>%%<!‘ <CC1BA<0 >D‘ $E‘ +@>‘ E1#0=>.‘ $.<0C@>?‘ 1’‘ +@>‘ .1E<%‘ ‘<B %E!‘ , ? +>D‘ .<=10!‘ +1‘ 1$+< 0‘ +@>‘ .>C1=0 + 10‘ ‘.1B‘ 1.+>?‘ 1’‘ 5. 0C>‘ /1@0 ?‘ ?#CC>?? 10!‘ 01J‘ 0‘ @ ?‘ +>0+@‘ E><.!‘ <?‘ J>%%‘ <?‘ +1‘ .>A.>??‘ +@>‘ D ?1.D>.?‘ 0+1‘ J@ C@‘ +@>‘ C1#0+.E‘ @<D‘ ‘<%%>0‘ D# 0=‘ +@>‘ %10=‘ <$?>0C>‘ 1’‘ +?‘ ?1,>.> =0?‘ 1‘ +@ ?‘ >0D!‘ +@>‘ A. 0C A<%‘C + >?‘ <0D‘ C1BB#0 + >?‘ 1’‘ .<=10‘ @<D‘ .>C>0+%E‘ <D1A+>D‘ +@>‘ 0?+ +#+ 10‘ 1’‘ +@>‘ >.B<0D<D!‘1.=<0 ?>D‘ 10‘ ? B P %<.‘ A. 0C A%>?‘ J +@‘ +@<+‘ 1’‘ <?+ %>‘ >.D 0<0D!‘ 10‘ @ ?‘ <.. ,<%‘ <+‘ <.<=1??<‘ 0‘ +@>‘ A10+@‘ 1’‘ 1,>B$>.!‘ =<,>‘ @ ?‘ .1E<%‘ ?<0C+ 10‘ +1‘ +@>‘ <??1C <+ 10!‘ >K+>0D 0=‘ +@>‘ +>.B‘ 1’‘ +?‘ D#.<+ 10‘ +1‘ ‘ ,>‘ E><.?L‘ <‘ B><?#.>‘ >K+.>B >%E‘ #0A<%<+<$%>‘ +1‘ +@>‘ =.><+‘ ‘>#D<%‘ 01$ % +E!‘ J@1?>‘ &A1J>.!‘ 1.‘ .<+@>.‘ <$#?>‘ 1’‘ A1J>.!‘ J<?‘ C10? P D>.<$%E‘ <$. D=>D‘ $E‘ +@ ?‘ A1A#%<.‘ B % +<.E‘ ‘1.C> T

@>‘ ?1,>.> =0?!‘ <‘+>.‘ <CC1BA% ?@ 0=‘ +@>‘ 1$">C+?

L‘ N$, %‘)% ‘ D>‘ %‘) ‘ ,,! ,4!‘FF.!‘ (!‘F,,! J $ ‘% *)!‘ T‘ 1!‘ ,.!‘ 0 !‘ 8 !‘ 87‘ 8-8 J‘ D>‘ ‘ >E>?‘ *% 8(‘ !‘ ,,,!‘ >‘ T‘ % ,%)%‘ 8, ‘D>‘ 3%)%‘ 1!‘ F .!

1'' +@> .' , ? +!' <0D' 1$+< 0 0=' <0' <AA.1A. <+ 10' '.1B'
1.+>?' '1.' +@>' 11. ?@' J<.!' A<??>D' 0+1' <%>0C <!'
J@>.>' B><?#.>?' 1'' % H>' >'' C >0CE' J>.>' <D1A+>D' '1.'
.>?+1. 0=' +@>' <#+@1. +E' 1'' +@>' %<J!' J@ C@' J<?' >KP
A1?>D' +1' ?#C@' A>.A>+#<%' %<A?>?' 0' +@ ?' +#.$#%>0+' <=>!'
>,>0' 0' +@>' $>?+' C10?+ +#+>D' =1,>.0B>0+?!' <?' .>F# .>D'
+@>' #+B1?+' , = %<0C>!' 10' +@>' A<.+' 1'' +@1?>' 0+.#?+>D'
J +@' +@>' ?#A.>B>' >K>C#+ ,>' A1J>.!' '1.' +?' A.1+>C+ 10'
.1B' <%>0C <' +@>' C1#.+' A.1C>>D>D' +1' #.C <!' J@>.>'
>.D 0<0D!' 0' +@>' B10+@' 1'' /#0>' 644!' <??#B>D' +@>'
C1BB<0D' 1''<0' <.BE' <B1#0+ 0=' +1' %>??' +@<0' 7 ! '
B>0!' <' ?B<%%' '1.C>' C1BA<.>D' J +@' +@1?>' #?#<%%E'
%>, >D' 10' +@>?>' 1CC<? 10?' L' +' $> 0=' +@1#=@+' <D, ?<$%>'
+1' ?#''>.' +@>' 0<+ 10' +1' $.><+@>' <J@ %>!' <'+>.' +@>' >KP
@<#?+ 0=' >''1.+?' 0' J@ C@' +' @<D' $>>0' #0 0+>.B +M'
+ 0=%E' >0=<=>D' '1.' ?1' B<0E' E><.?

>.D 0<0D!' C.1?? 0=' +@>' ><?+>.0' $1.D>.?' 1'' .<P
0<D<!' <+' 01' =.><+' D ?+<0C>' '.1B' >.<!' J@ C@' ?A>>D %E'
1A>0>D' +?' =<+>?!' H>A+' <%10=' +@>' ?1#+@>.0' ?%<0+' 1''
+@>' C1<?+' <?' '<.' <?' %B . <L' J@>AC>!' <'+>.' >KA>P
. >0C 0=' ?1B>' .1#=@' +.><+B>0+' '.1B' <' ?1.+ >' 1''+@>'
=<.. ?10!' @>' B<.C@>D' $E' <' 01.+@>.%E' C .C# +' 10' <G<!'
'1.' +@>' A#.A1?>' 1'' .>C1001 +. 0=' +?' A1? + 10!' <?' @ ?'
0#B$>.?' J>.>' <%+1=>+@>.' 0<D>F#<+>' +1' +?' ? >=>' '
D , ? 10' 1'' +@>' <.BE' #0D>.' +@>' <.F# ?M #H>' 1''
<D G' ?#''>.>D' +?>%'' +1' $>' D.<J0' @>.>' 0+1' <0' <BP
$#?C<D>' $E' +@>' J %E' 1%D' B10<.C@' %' V<=<%!' J@1' %<E'
0' <G<' J +@' <' ?+.10=' '1.C>' '+>.' >K+. C<+ 0=' @ ?'
+.11A?' J +@' ?1B>' D '' C#%+E' <0D' %1??' '.1B' +@ ?' A>. %1#?'
A.>D C<B>0+!' >.D 0<0D' .>+.><+>D' 10' @ ?' 1J0' D1B M

0 10?' $E' +@>' J<E' 1'' #>?C<.!' J@>.>' @>' D ?$<0D>D' @ ?' <.BE!' <0D' J +@D.>J'+1' 1''>.' #A' @ ?' D>,1+ 10?' <+' +@>' C.1??' 1'' <.<,<C<' @>' C<BA< =0!' <%+@1#=@' ? =0<%P G>D' $E' 01' $. %% <0+' <C@ >,>B>0+!' <0D' 0D>>D' C%1#D>D' J +@' ?1B>' ?% =@+' .>,>.?>?!' ?>C#.>D' +@>' ?#..>0D>.' 1'' <' C10? D>.<$%>' 0#B$>.' 1'' '1.+.>??>?!' <0D' +1 J 0?' 1'' 0'>P . 1.' 01+> T

@>' 11. ?@' C@ >'!' %' V<=<%!' >%<+>D' $E' @ ?' .>C>0+' ?#CC>??!' B<D>' '.>F#>0+' '1.<E?' 0+1'+@>' @. ?+ <0' +>.P . +1. >?!' ?J>>A 0=' 1''+@>' '%1CH?!' @>.D?!' <0D' =.1J 0=' C.1A?' 1''+@>' @#?$<0DB<0!' J@ %>'+@>'=<.. ?10?' 1'' %M' B>. <' <0D' <%1$.>0<!' <0D' +@>' $1%D' 0@<$ +<0+?' 1'' +@>' ,<%%>E' 1''5#.C@>0<!' A1#.>D' <' ? B %<.' D>,<?+<+ 0=' J<.'<.>' 1,>.' +@>' ><?+>.0' $1.D>.?' 1'' .<0<D<' 0+1' #.C <' 1' B>>+' +@ ?' A.>??#.>!' +@>' A<0 ?@' ?1,>P .> =0?' .> 0'1.C>D' +@>' '.10+ >.' J +@' <DD + 10<%' %>, >?' #0D>.' /#<0' D>' >0<, D>?' <0D' <.C %<??1' D>' %<' >=<L' J@ %>' @. ?+ <0' H0 =@+?!' J@1?>' A.1J>??' ?' <++>?+>D' 0' B<0E' <' 11. ?@' %<E!' '%1CH>D' +@>.>' '.1B' <%%' F#<.+>.?' <?' +1' +@>' +@><+.>' 1'' J<.

#. 0=' +@>' '1%%1J 0=' J 0+>.' 1'' 644!' >.D 0<0D' <0D' ?<$>%%<' 1CC#A >D' +@ .<?>%,>?' J +@' +@>' 0+>. 1.' =1,>.0B>0+' 1'' <?+ %>!' <0D' A<.+ C#%<.%E' +@>' <DB 0 ?P +.<+ 10' 1''"#?+ C>' ' C1BB ?? 10' J<?' ?A>C <%%E' <AP A1 0+>D' +1' ?#A>., ?>' +@>' C10D#C+' 1'' +@>' C1..>= D1.?' <0D' ?#$1.D 0<+>' B<= ?+.<+>?!' W' ?1' +@<+' >,>.E' 10>!R ?<E?' 5#%=<.!' Q' J<?' B1?+' C<.>'#%' +1' D ?C@<.=>' @ ?

W' % ' 8, !' 5K 3%') ' D !J *% 5)) ' 8, !5K 0,2$' 1!.,,,!3!' / !J $ '% ' *),(% ' 5K 3%') ' 1!',,,!' 33!' HI' 5' ' C ' *% ,(' (! F(.,,,!' HH!' J' :%,)5 G' 5' *% 4%+% ' J N$),'%')% '5' ., %' 3!')% ' !')0,' II!

D#+E' '< +@'#%%E!' 0' 1.D>.' +1' >?C<A>' +@>' A>0<%+E' J@ C@' J<?' 1+@>. J ?>' ?#.>' +1' 1,>.+<H>' @ B RT

@ %>' <+' <%%<D1% D!' +@>' ?1,>.> =0?' .>C> ,>D' <0' >B$<??E' '.1B' <K B % <0!' ?10' 1'' +@>' BA>.1.' .>P D>. C' ' 1'' >. B<0E!' '1.' +@>' A#.A1?>' 1'' ?1% C + 0=' +@> .' C11A>.<+ 10' 0' @ ?' D>? =0?' <=< 0?+' .<0C>' '1.' +@>' .>?+ +#+ 10' 1'' @ ?' %<+>' J '> ?' . =@+'#%' 0@>. +<0C>!' +@>' D#C@E' 1'' #.=#0DE!' >0=<= 0=' 0' +#.0' +1' ?#AA1.+' +@>B' 0' +@> .' C%< B?' 10' 1#?? %%10' <0D' >.D<=0>' @>' A<0 ?@' B10<.C@?' @<D' %10=' >0+>.+< 0>D' B<0E' C<#?>?' 1'' D ?=#?+' J +@' +@>' .>0C@' C1#.+!' $1+@' J +@' .>=<.D' +1' +@>' B1.+=<=>D' +>.. +1.E' 1'' 1#?? %%10' <0D' +@>' H 0=D1B' 1'' <,<..>L' <0D' +@>E' J<+C@>D' J +@' "><%1#?' >E>' +@>' D< %E' 0C.><? 0=' <#+@1. +E' 1'' +@> .' '1.B D<$%>' 0> =@$1#.' 10' +@> .' 1J0' '.10+ >.' @>E' @<D' $>>0' 0D#C>D' 0' +@>' A.>C>D 0=' ?#B B>.' +1' >F# A' <0' <.B<B>0+' <+' ?C<E' <0D' # A#?C1<!' +1' ?#AA1.+

C' 10D>!' 1B 0<C' D>' %1? .<$>?' >0' ?A<0<!' +1B' ' AA' 7 :!' 76 ' O' 5#%=<.!' .10!' D>' %1?' >E>?' <+' C' !'

#. 0=' +@>' A.>C>D 0=' E><.!' J@ %>' +@>' C1#.+' J<?' <+' #.P C<!' J>' 'OD' 10>' 1'' +@>' >KP <BA%>?' 1'' A.1BA+' <0D' ?>,>.>' >K>.C ?>' 1'' "#?+ C>' J@ C@ ?1B>P + B>?' 1CC#.' 0' +@ ?' .> =0' 0>' 1'' +@>' .1E<% C1%%>C+1.?' @<, 0=' $>>0' .>? ?+>D!' <0D' A>.?10<%%E' B<%+.><+>D!' $E' +@>' 'DC<ED>' 1'' <%,<+ >+.<!' <' A%<C>' $>%10= 0=' +1' +@>' C.1J0!' <0D' $E' +@>' <%C<%D>' 1''<' +>.. +1. <% C1#.+' 1''+@>' #H>' 1'' %,<!' +@>' F#>>0' C<#?>D' 10>' 1''+@>' .1E<% "#D=>?' A. ,<+>%E' +1' >0+>.' 0+1' +@>' A%<C>!' <0D' +<H>

('),G%)(' 0' A ' %00%, !' A ' % '%0 '%'4 , 0',) . ,'% ,)' (1 1%)5 5' A ' % (%C5 ' ' 4 ' A$)'' $3' . ' A, ' 0 ' %)5' A ' % (% 5 ' ' 4 ' 5 ,. 5' . ' ' A ' ($ ' 0'(A%)(C'% ' E% ; %5 ,5' BA ' 5 5' A, ' ,'A ' A%)5' ' 4 ' %1 3$ % 5 ' %)5' 4%;), A 5' A,1' A ' % 1!' A, ' $1 1 % C' +$,(' B% ' 3 A%3 ') (% C' ,)' %' (1 1$), C' A% ' 1,'A ' 4 ' %,5' ' 4 ',)' %) , ,)' 0 1'%' % ' 0'4% 4% , 1' ' A% ' 0' (,. , % ,)' %)5' A%5'%' % $; % C' 00 (' ,)' 3 .,)'' % A ' 3 3 ' A% ')' %)@' B% ' .% ; 5') $'A' ' %, ' A ' 00)5 ' !%4 . ' A ' %B! J $ '% ' (!F(,F!

+@> #H> 1' . ++<0E 0 @ ? J<.? J +@ +@> .>0C@ .>=>0+! +@> C>%>$.<+>D 00> D> ><#"># @ ? >KP A>D + 10! J@ C@ A.1,>D D ?<?+.1#?! J<? '1%%1J>D $E <01+@>. 0 +@> ?A. 0= 1' +@> ?#CC>>D 0= E><. T #+ 01+J +@?+<0D 0=+@>?> 1CC<? 10<% >A ?1D>? +1 +@> =.><+ J1.H 10 J@ C@ +@>E J>.> >0=<=>D! +@>E @<D % ++%> %> ?#.> '1. >K+>0D>D 1A>.<+ 10?L <0D <%+@1#=@ +@>E >0+>.>D 0+1 +@> A.1A1?>D +.><+E 1' <%% <0C> J +@ <K B % <0! +@>E D1 01+ ?>>B +1 @<,> C10+>BA%<+>D <0E B1,>B>0+ 1' BA1.+<0C> $>'1.> +@> +>. B 0<+ 10 1' +@> 11. ?@ J<. @> %>B ?@ <B$<??<D1.?! <'+>. $> 0= >0+>.+< 0>D '1. '1.+E D<E? 0 < ?+E%> ?# +>D +1 BA.>?? +@>B J +@ @ =@ D><? 1' +@> B<=0 ' C>0C> 1' +@> A<0 ?@ C1#.+ <0D 1' +? '. >0D%E D ?A1? + 10 +1J<.D? +@> . B<?+>.! J>.> D ?B ??>D J +@ C1?+%E A.>?>0+?! <0D .>+#.0>D +1 +@> . 1J0 C1#0+.E '

@>?> 0>=1+ <+ 10? ?@1J +@> 0C.><? 0= 0+ B<CE =.1J 0= #A $>+J>>0 +@> #.1A><0 ?+<+>?! J@1! <? +@>E ?>++%>D +@> . D1B>?+ C '>#D?! @<D %> ?#.> +1 +#.0 +@> . >E>? <$.1<D! <0D >0+>. 0+1 +@> B1.> >K+>0D>D ' >%D 1' 0+>.0<+ 10<% A1% + C? @>+>01. 1'+@ ? +.><+E

Q %,')C! 8, 5 *A% ,) BA,(A 5 ,. A)';
E ! 5! %, / 33! 0 , A) 4 BA 1%5 $(A % '%;
HD! J , 1)5, 8, 5 %)> %) 0,'$ % A , ' 0 +%
H , 1! =E! 3! //! J) A, ,0 !) A 3 ,)' 0
)% 5 %.% % 1! .! 3! ! DIH A .,) ,) %)(
J 8, 5 %.% 3% $) 5 %1 $) 5 B A $ %)5 ,)
 (%, 5 8) , E! 33!)$14 ! A 00 %4 %5
6/I 6/H! J $ '% *) 5 ,1$ %) $ B, A A ',% % 3 ;
  C (! (,,!) A 0, 0 %,) 0 A , A B% A B
A F3 5, ,) 1 A%) % A $ %)5 3%),% 5 B %,) %@) % A 5, % $ 4% 0 A $ %) $ B A $ (% B %) 'C
 ! $4,) DII 4 ,)' A %1 0 A . ,') !
  '5#%=<.! .10! 5 C #$?#A.<

0D C<+>?' <%?1' +@>' D .>C+ 10' J@ C@' <''< .?' J>.>' +1' +<H>' J@>0' +@>' =.><+' A1J>.?' ?@1#%D' $>' $.1#=@+' 0+1' C1%% P ? 10' J +@' ><C@' 1+@>.' 10' <' C1B B10' +@><+.>' 1'' <C+ 10

%%' +@1#=@+?' J>.>' 01J' C10C>0+.<+>D' 10' +@>' A.1?>P C#+ 10' 1''+@>' J<.' J +@' ..<0<D<!' J@ C@' +' J<?' D>+>.M' B 0>D' ?@1#%D' $>' C10D#C+>D' 1#' <' B1.>' >0%<.=>D' ?C<%>' +@<0' +' @<D' E>+' $>>0!' 01+J +@?+<0D 0='+@>' '><.'#% A>?+' J@ C@' @<D' D>?1%<+>D' +@>' C1#0+.E' D#. 0='+@>' A<?+' E><.!' <0D' +@>' >K+.>B>' ?C<.C +E' 1''=.< 0!' 1J 0='+1' +@>' 0#0P D<+ 10?' C<#?>D' $E' >KC>?? ,>' .< 0?' 0' +@>' '.# +'#% A.1P , 0C>?' 1''+@>' 1#+@' @>'=.><+' 1$">C+' A.1A1?>D' 0' +@ ?' C<BA< =0' J<?!' +@>' .>D#C+ 10' 1'' <G<!' +@>' C<A +<% 1'' +@<+' D , ? 10' 1''+@>'>BA .>' J@ C@'$>%10=>D'+1' %' V<=<%' >? D>?' +@ ?' BA1.+<0+' C +E!' +@<+' B10<.C@ ?' D1B P 0 10?' >.<$.<C >D' +@>' J><%+@E' ?><A1.+' 1'' %B>. <!' #<M' D K!' <0D' 0#B>.1#?' 1+@>.' +1J0?' <0D' , %%<=>?' 1'' %>??' C10?>F#>0C>!' +1=>+@>.' J +@' +@>' B1#0+< 0' .>= 10' 1'' +@>' %A#K<..<?!' . C@' 0' B 0>.<% J><%+@!' J@1?>' 0P @<$ +<0+?!' '<B1#?' '1.' +@>' A>.'>C+ 10' +1' J@ C@' +@>E' @<D' C<.. >D' +@>' ? %H' B<0#'<C+#.>!' J>.>' >F#<%%E' H01J0' '1.' +@> .' >0+>.A. ?>' <0D' C1#.<=>' 0' J<.L' ?1' +@<+' %' V<=<%?' D , ? 10' C1BA.>@>0D>D' +@>' B1?+' A1P +>0+' <0D' 1A#%>0+' A1.+ 10' 1''+@>' >BA .>T

W' 1%5 G'8, '5 ' C ' N$, %' 1) ,)' A ' 3 ' A%' *% ,(' !' (!' J N$, %' 0 $ >0,0 A ' 0' A ' BA ' 3 3$ %;)% '5 ' %')' 1!' ,.!' 0 !' ,)' B ' B 3' %B%C' 4C' A ' 6D! J 5% *),(%5 >' 3 ,)(' 0' DII!' N$, %' 0,)5' '0 !' /! J 4% (%' C '5' 1 ' 5,00,($ C' ,)' B% B,)''' %') 1!',,!' 0 !' /!' $(A' A,' 1) $' % 1)' A%)' B%' A' (% (, C' 0'' %,)' AT' A' % A ' 4% (%' BA ' %33 , ' 3 ,(',)' DI'H' 2$ 5'4C' 1%; 0 ' A ' 1% . $' %33 % ' ' 5 G'% '5 $4 ' A ' 0' A '3 ; A%. ' 4)' 0$ C' 2$%' ' A%' 0' (5,)''C % !' A' 4% (%')5 1 ' 0'A, ' (% ,)''),' 3%,)!

0 +@> ?A 0= 1'' 64:! +@> <?+ %<0 C1#.+ A<??P >D +1 /<>0! <+ J@ C@ A%<C> +@> F#>>0 J<? +1 >?+<P $% ?@ @>. .>? D>0C>! <? A.>?>0+ 0= +@> B1?+ '<,1#.P <$%> A1 0+ 1'' C1B B#0 C<+ 10 J +@ +@> 0,<D 0= <.BE >.D 0<0D <D,<0C>D <? '<. <? 1+1=1.D1! J@>.>! 10 +@> 79+@ 1'' <E! @> A#+ @ B?>%'' <+ +@> @><D 1''< 0#B>.1#? '1.C>! <B1#0+ 0= +1 <$1#+ 8! @1.?> <0D 4 ! '11+! 0C%#D 0= A>.?10? 1'' >,>.E D>?C. A+ 10! <B10= J@1B J<? =<+@>.>D! <? #?#<%! +@<+ C@ ,<%.1#? <..<E 1'' 01$ % +E <0D H0 =@+@11D J@1! J +@ ?+<+>%E <0D J>%%M<AA1 0+>D .>+ 0#>?! J>.> <CC#?+1B>D +1 '1%%1 J +@> .1E<% ?+<0D<.D 0 +@>?>C.#?<D>? T

@> '.?+ A1 0+ <=< 0?+ J@ C@ 1A>.<+ 10? J>.> D P .>C+>D J<?! +@> ?+.10= A1?+ 1'' #K<.! +J1 %><=#>? 10%E '.1B <G<! J@ C@ ?#..>0D>.>D <'+>.'<$. >''$#+ D>?A>.<+> .>? ?+<0C> @> 1CC#A<+ 10 1'' +@ ? A%<C>! <0D ?1B> <D"<C>0+ '1.+.>??>?! %>'+ +@> <AA.1<C@>? 1A>0 +1 % V<=<% ?C<A +<% ? +@> A<0 ?@ <.BE +1 %>D #A +@> @> =@+? 1'' +@> B1#0+< 0 $<.. >.J@ C@

L ! % C , 3$ 3, > 5 ,')(5) % > % $1 ,4!,, 3! FF! J $ > 21 > $@ 0 *%5,G! '% *),(% 5 C (! (,.!) ,2$ 5 : $G1%) $@ 0 1%C) 4 %1, 3 (,0C 5,)% ,5),%! A)%1 0 A 1 5, ,); 5 %) ,2$ $@ 0 %; '$, A 5 (%.%, BA $ $% C + %! %)5 5 A @,) '',) A ; ?$%) %(A ($@ 0 (%> , AB% A A ,(%)(0)%< % 2$, 0E)%! 1%)C %) 4 A $, F %) ?$%) ,1) * $) 0)%> ,) 3%,)! .) !)G 5 *% 5)% % 0 %5,,2$ 5 5) 0 , %,) ?%' ! $@ 0 .%! ?$%) 5 N$),'% % 0M ; , ')%)5 G 5 * 5 .% (%) % %! * $) 0 *%4 %! ?$%) :% (,% 5 %5, % % : 1 G .% G 5 ,'$ % 0 *% % %.%! * $) 0 ,%!

" .%

G>0?!‘ ‘C10,>.+>D‘ 0+1‘=<.. ?10>D‘ '1.+.>??>?‘ @>‘ ?#$#.$?‘ J>.>‘ >0C1BA<??>D‘ $E‘<‘ %1J‘ B#D‘ J<%%!‘ $#+‘ +@>‘ '1.+'C<+10?‘1'‘ +@>‘ C+E‘ J>.>‘ 1'‘ #0C1BB10‘ ?+.>0=+@‘ @>‘A%<C>!‘ 0‘ <DD+10‘ +1‘ +>0‘ +@1#?<0D‘ +.11A?‘1'‘ +?‘1J0!‘ J<?‘ =<.. ?10>D‘ $E‘<0‘>F#<%‘ 0#BP $>.‘' 1B‘ %B>. <!‘A CH>D‘ B>0!‘ #0D>.‘ +@>‘ C1BB<0D‘ 1'‘+@>‘ 11. ?@‘A. 0C>‘ D‘ <@E>!‘<‘.>%<+ ,>‘1'‘V<=<%!‘ J@1‘ %<E‘<+‘ +@ ?‘+ B>‘ 0‘ #<D K!‘ A.>A<.>D‘ +1‘ C1,>.‘ @?‘1J0‘ D1B 0 10?‘ <=< 0?+‘ <0E‘@1?+ %>‘ B1,>B>0+‘1'‘ @?‘. ,<% 0‘ .<0<D<‘ @>?>‘,>+>.<0?‘J>.>‘C1BB ?P ?10>D‘ +1‘ D>'>0D‘ +@>‘ A%<C>‘ +1‘ +@>‘ %<?+‘ >K+.>B +EL‘ <0D!‘<?‘D#>‘+ B>‘@<D‘$>>0‘= ,>0‘ '1.‘A.>A<.<+ 10!‘+@>‘ +1J0‘ J<?‘, C+#<%%>D‘J +@‘ ' '+>>0‘ B10+@?‘A.1, ?10?!‘ <0D‘ >,>0‘ +@>‘ C.1A?‘ =.1J 0=‘ 0‘ +@>‘ ,>=<‘ @<D‘ $>>0‘ =<.0>.>D‘ $>'1.>‘ +@> .‘ A. B>!‘ +1‘ ?<,>‘+@>B‘ '.1B‘ +@>‘ @<0D?‘1'‘+@>‘ >0>BET

@>‘ ' .?+‘ 1A>.<+ 10!‘ <'+>.‘ +@>‘ @. ?+ <0‘ <.BE‘ @<D‘ >0C<BA>D‘ $A'1.>‘ +@>‘ J<%%?‘ K*'‘ <G<!‘ J<?‘ +1‘ =>+‘ A1?P ?>?? 10‘1'‘+@>‘=<.D>0!‘ J +@1#+‘ J@ C@‘ +‘ J1#%D‘$>‘ BP A1?? $%>‘ +1‘ >0'1.C>‘ <‘ +@1.1#=@‘ $%1CH<D>!‘ ? 0C>‘ +?‘ %<UE%%0+@‘1'‘<,>0#>?‘ <''1.D>D‘+@>‘ 0@<$ +<0+?‘ <$#0DP <0+‘'<C % + >?‘1'‘C1BB#0 C<+10‘ J +@‘+@>‘ ?#..1#0D 0=‘ C1#0+.E‘ @>‘ <??<#%+‘ J<?‘ 0+.#?+>D‘ +1‘ +@>‘ .<0D‘ <?+>.‘1'‘ +‘ /<B>?!‘ ?#AA1.+>D‘$E‘+@>‘A. 0C A<%‘ C<P ,<% >.?!‘<0D‘+@>‘H 0=‘ 0‘A>.?10‘ @> .‘ .>C>A+ 10‘ $E‘ +@>‘>0>BE‘J<?‘ ?#C@‘<?‘=<,>‘+@>B‘ <‘ '1.>+<?+>‘1'‘+@>‘ A>. %?‘<0D‘D>?A>.<+>‘D<. 0=‘+@>E‘J>.>‘+1‘>0C1#0+>.‘0

L‘N) , %‘)% ‘5‘ %')‘ L 3 !‘ ,4!‘,,‘ 3!‘ FF! J‖ %5%‘ 1!‘,.!‘0 !‘ ! J *)5‘)‘ 4%(,)‘ :) %‘5‘ 3%)%‘ 5‘ ‘ %4‘)‘ 3%)%‘ 1!‘ 1!‘,,!‘0 !‘ H! J‘ % 1 ‘ ; ,,,!‘3!‘ D ! J !‘ % C‘ 3$ 4 !‘5‘ ‘ , (‘,4!‘,!‘(!‘F.,!‘

+@>' A.>?>0+' ? >=>' @>' $.1H>0' ?#.'<C>' 1''+@>' =.1#0D!' $>J %D>.>D' J +@' 0+. C<+>' A<??>?!' <0D' +@ CH%E' ?+#DD>D' J +@' +.>>?' <0D' >D ' C>?!' J<?' A>C#% <.%E' '<,1#.<$%>' +1' +@>' D>?#%+1.E' <0D' %%#?1.E' +<C+ C?' 1''+@>' 11.?' @>' A<0 ?@' C<,<%.E' J<?' $.1#=@+' <+' 10C>' +1' <' ?+<0DL' +@>' =.1#0D' A.1, 0=' BA.<C+ C<$%>' '1.' +!' +' J<?' D ?P B1#0+>D!' <0D' %>D' +1' +@>' C@<.=>' $E' +?' 1'' C>.?' 10' '11+' @>' B>0!' @1J>,>.!' J>.>' ?110' ?C<++>.>D' '<.' <?#0D>.' '.1B' +@> .' $<00>.?' <0D' +@> .' %><D>.?' >.D 0<0D!' J@1' '.1B' <' C>0+.<% A1? + 10' >0D><,1#.>D' +1' 1,>.%11H' +@>' ' >%D!' J +@' +@>' D>? =0' 1''?#AA1.+ 0=' +@>' <++<CH' 10' +@>' A1 0+?' B1?+' .>F# . 0=' +!' ?110' %1?+' ? =@+' 1''@ ?' C1%#B0?' <B D' +@>' A.>C A +1#?' .<, 0>?!' <0D' +@>' D>0?>' B<??>?' 1''1% <=>' J@ C@' >,>.EJ@>.>' 0+>.C>A+>D' +@>' , ? 10' @>' C1B$<+' J<?' C<.. >D' 10' @<0D' +1' @<0D' 0' +@>' #+B1?+' C10'#? 10' + %%' +@>' A<0 <.D?' A.>??>D' '1.J<.D!' <0D' <'+>.' <' D>?A>.<+>' ?+.#==%>' '1.' +J>%,>' @1#.?!' 0' J@ C@' B<0E' 1''+@>' $.<,>?+' 10' $1+@' ? D>?' '>%%!' <0D' +@>' 1?%U.<' C@ >'!' >D#<0' V<'<.=<!' @<D' '1#.' @1.?>?' ?#CC>?? ,>%E' H %%>D' #0D>.' @ B!' +@>' >0>BE' J>.>' $><+>0' $<CH' $>@ 0D' +@>' >0+.>0C@B>0+?' +@<+' C1,>.>D' +@>' ?#$#.$?!' <0D' +@>' A<0 <.D?!' @<?+ %E' C10?+.#C+ 0=' <' D>'>0C>' 1''A<% ?<D>?!' A +C@>D' +@> .' +>0+?' 10' +@>' ' >%D' 1''$<++%> T

@>' '1%%1J 0=' B1.0 0=' >.D 0<0D' @<D' +@>' B1.+ M

Q' $ '% ' *)'5' ' C ' . +C'5,00)'0 1' ,') %)' 5' *%!' (!' (.,!' (.,,! J T*)5' 1,>')% %,.' 0' 1' 0' A'3 (5; ' #' &'6 .#&'! ' ; ' ' ,)''3 %,)',)' ,,'B%!' A' < J %#!'1 != &' >"&' '>&!' A'%)5' % C'B '3)'5$; 3!' ! J $ '%' % ' A ' ,)''A'BA ' , ' ' 0' %G%! 3% ,($ % ' B, A' %' 3 3,($, C

* # ‘ ‘ N !

‘ C<+ 10‘ +1‘ 1$?>. ,>‘ +@<+‘ +@>‘ =.1#0D‘ J<?‘ +11‘ $.1H>0!‘ <0D‘ 1$?+.#C+>D‘ J +@‘ J11D!‘ +1‘ <‘‘1.D‘ <‘ ?# +<$%>‘ A%<C>‘ ‘1.‘ <‘ =>0>.<%‘ >0C<BAB>0+‘ 1‘ >,<C#<+>‘ @ ?‘ A1? + 10!‘ @1J>,>.!‘ 0‘ +@>‘ ‘<C>‘ 1‘‘ +@>‘ >0>BE!‘ J<?‘ <‘ D>% C<+>‘ B<01>#,.>!‘ <0D‘ B#?+‘ 0>C>??<. %E‘ >KA1?>‘ @ B‘ +1‘ ?>P ,>.>‘ %1??‘ @ ?‘ @>‘ 1$, <+>D!‘ 0‘ <‘ =.><+‘ B><?#.>!‘ $E‘ <‘ ‘1.+#0<+>‘ ?+.<+<=>B‘ >‘ C1BB<0D>D‘ +@>‘ +>0+?‘ 0><.>?+‘ +@>‘ +1J0‘ +1‘ $>‘ %>‘+‘ ?+<0D 0=!‘ <0D‘ +@#?‘ ?#CP C>>D>D‘ 0‘ D.<J 0=‘ 1‘‘+@>‘ =.><+>.‘ A<.+‘ 1‘‘ @ ?‘ ‘1.C>?‘ $>‘1.>‘ +@>‘ >0>BE‘ J<?‘ <J<.>‘ 1‘‘@ ?‘ 0+>0+ 10

‘+>.‘ .>=< 0 0=‘ @ ?‘ ‘1.B>.‘ A1? + 10!‘ <‘ C1#0C %‘ 1‘‘ J<.‘ J<?‘ ?#BB10>D‘ +1‘ D>% $>.<+>‘ 10‘ +@>‘ C1#.?>‘ 0>K+‘ +1‘ $>‘ A#.?#>D‘ @>‘ C@ >‘?‘ J>.>‘ ‘ %%>D‘ J +@‘ D>?A10DP >0CE‘ <?‘ +@>E‘ .>,1%,>D‘ +@>‘ D ‘‘ C#%+ >?‘ 1‘‘ +@> .‘ ? +#P <+ 10‘ @>E‘ <%B1?+‘ D>?A< .>D‘ 1‘‘>0‘1.C 0=‘ +@>‘ $%1CHP <D>‘ 1‘‘<‘ A%<C>‘ J@1?>‘ A>C#% <.‘ ? +#<+ 10‘ =<,>‘ +‘ ?#C@‘ <D,<0+<=>?‘ ,>0‘ C1#%D‘ +@ ?‘ $>‘ >‘‘>C+>D!‘ +@>‘ C<BA‘ J1#%D‘ $>‘ >KA1?>D!‘ +@>E‘ <.=#>D!‘ +1‘ +@>‘ <??<#%+?‘ 1‘‘ <‘ D>?A>.<+>‘=<.. ?10‘ 10‘ +@>‘ 10>‘ @<0D!‘ <0D‘ 1‘‘+@>‘ A1A#P %1#?‘ C +E‘ 1‘‘ #<D K!‘ @<.D%E‘+J>0+E‘ B %>?‘ D ?+<0+!‘ 10‘ +@>‘ 1+@>.L‘ J@ %>‘ +@>‘ =11D‘ ‘< +@‘ 1‘‘ .<0<D<‘ C1#%D‘ ?C<.C>%E‘ $>‘ >KA>C+>D‘ +1‘ 1#+% ,>‘ <‘ ? 0=%>‘ .>,>.?>‘ 1‘‘ ‘1.+#0>L‘ ?1‘ +@<+!‘ 0?+><D‘ 1‘‘ $>? >= 0=!‘ +@>E‘ B =@+‘ $>‘ B1.>‘ A.1A>.%E‘ .>=<.D>D‘ <?‘ +@>B?>%,>?‘ $>? >=>D‘ 0‘ <DD + 10‘ +1‘ +@>?>‘ >, %?!‘ +@>‘ J 0+>.‘ ‘.>F#>0+%E‘ ?>+‘ 0‘ J +@‘ B#C@‘ . =1#.‘ 0‘ +@ ?‘ F#<.+>.L‘ <0D‘ +@>‘ +1..>0+?‘ D>?C>0D 0=‘ ‘.1B‘ +@>‘ B1#0+< 0?!‘ <0D‘ B 0=% 0=‘ J +@‘ +@>‘ J<+>.?‘ 1‘‘+@>‘ ,<%%>E!‘ B =@+‘ 1,>.J@>%B‘ +@>‘ C<BA‘ J +@‘ <0‘ 0#0D<+ 10!‘ J@ C@!‘ ‘‘ +‘ D D‘ 01+‘ ?J>>A‘ +‘ <J<E‘ <+‘ 10C>!‘ J1#%D‘ >KA1?>‘ +‘ +1‘ +@>‘ A>. %?‘ 1‘‘ ‘<M

B 0>!' $E' C#++ 0=' 1''' <%%' >K+>.0<%' C1B B#0 C<+ 10'
0D>.' +@>?>' =%11B E' BA.>?? 10?!' B<0E'1''+@>'C1#0C %'
#.=>D' >.D 0<0D'+1'$.><H' #A' @ ?' A1? + 10' <+'10C>!' <0D'
A1?+A10>' <%%' 1A>.<+ 10?' 10' <G<!' #0+ %' +@>' .>D#C+ 10'
1''+@>' ?#..1#0D 0=' C1#0+.E' ?@1#%D' B<H>' +' C1BP
A<.<+ ,>%E' ><?E' ,>0' +@>' <.F# ?' 1'' <D G' =<,>'
0+1' +@ ?' 1A 0 10' <0D' #+ >0>' D>' <.D>0<?!' 1BP
B<0D>.' 1'' >10!' <' C<,<%>.' D>?>.,>D%E' @ =@' 0' +@>'
C10'D>0C>' 1''+@>' H 0=!' J<?' <%B1?+' +@>' 10%E' A>.?10'
1''C10? D>.<+ 10' D>C D>D%E' 1AA1?>D' +1' +' 0' +@ ?'
A>.A%>K +E!' >.D 0<0D!' <?' #?#<%' 0' ? B %<.' >K =>0C >?!'
.>?1%,>D'+1'+<H>'C1#0?>%' 1''+@>'F#>>0 T

?<$>%%<' .>C> ,>D' @>.' @#?$<0D ?' D>?A<+C@>?' <' '>J'
@1#.?' <'+>.' +@>E' J>.>' J. ++>0!' $E' B><0?' 1''+@>' .>=#P
%<.' % 0>' 1'' A1?+?' B< 0+< 0>D' $>+J>>0' +@>' C<BA' <0D

L' 1%5 G'8, '5 ' C ' 5' $ ' ' ,A 3' 0' %)(,%'
*% !' !' (!' F(,,! J *%5)) ' ( )0 ' 0' A ' . ,') !')'
8, !' 5K 0,2$ ' ' 5K 3%') ' ?$%)' *A%( )' B%' A ')' 0'
1!' ,,,!' 33!' HH' ! J 5% :)%. 'BA'A%5' A '(% ' 0'
R*),(%5 ' ' 3!' !')' 0) '%)5' A '2$)'5$;
J :%,4%C' * 13)5!' 8, ! 5' ,)'A '1,) ,C'BA)'A'B%'
3%)%' 1!',,!' 3!' D! ,)5$(5'4C' A ' ,4 %' % '
)' :$, ' 5' *%5)%' 0'?A)' !' 0' %')' ' 3 ;
BA'3 5' 'A,'A'%'3%(',)' 1 'A '1% ,%' 'B, A' A, ')'
A'( )0,5)(' 0'A ' . ,') ' 5,)%)5!' A' 5' *A%( )'
((3, 5'% % ,)',)' A '2$)K' B%' % 5' 4C' A ' . ,')'
A $ A 5'%'B 'A%. ')'%' B, A' A'' % '50)('%)5'
A ' ,1 ' 0'A ' 1% ,%' 'B, A' 3 ('4 ,)''$ $% C' (% 5'4C'
5,)%)5!' 8,'5, (,)'%)5' A 1'$0%A !K 0 'A,'5 %A'
') %'%4, ,C')%4 5' A,1' ' A C'( ) ,)$ 5' 1%),0 '%' ,;
%,)' A ',)0$)(' BA,(A' A' 1,%' '% 5' B% 5 ')'?$%)'
A%5' % C'%(2$, 5'%',' A B)' A,' 5 ')'%)5' A ,' 0'A,'
4C'%'3 3$%'5, ,(A' 0'A%','1 ! %13 'A) $ '%)5' % !)5 G%' ,')'5'%' ,'),>'
5%5 ' ' % ' 5' *% , %',4!'
Y' *%5)%' C' ' *%5)%' C' ,.!' (!' ,! J ., 5 '#$,)($%')%'
*A%( )'C' %C' ' ! '
%)'%' * '%' ![%C' ' B%')')G

@>.' ?+<+ 10' <+' /<>0 ' @>' J<?' ' %%>D' J +@' C@<=. 0' <+' +@> .' BA1.+!' '.1B' J@ C@' ?@>' A%< 0%E' ?< J' +@<+' <%%' @>.' B =@+E' A.>A<.<+ 10?' J>.>' <$1#+' +1' ,<0 ?@' 0+1' < .'

+@ 1#+' <??# B 0=' +@>' .>?A10? $ % +E' 1'' D>C D 0=' +@>' A.1A1?>D' F#>?+ 10!' @1J>,>.!' ?@>' $>?1#=@+' @>.' @#?P $<0D' 01+' +1& D ?+.#?+' +@>' A.1, D>0C>' 1'' 1D!' J@ C@' @<D' C10D#C+>D' +@>B' +@.1#=@' ?1' B<0E' A>. %?' +1J<.D?' +@>' C10?#B B<+ 10' 1'' +@> .' J ?@>?' @>' .>B 0D>D' @ B!' +@<+' +@>' 11. ?@' '1.+#0>?' J>.>' 0>,>.' <+' ?1' %1J' <0' >$$' <?' <+' A.>?>0+!' <0D' +@<+' +@> .' 1J0' 1A>.<+ 10?' C1#%D' A.1$<$%E' 0>,>.' $>' .>?#B>D' 10' ?#C@' <' '1.B DP <$%>' ?C<%>!' 1.' #0D>.' ?1' '<,1#.<$%>' <#?A C>?' <?' 01J!' J@>0' +@> .' <.B?' @<D' 01+' $>>0' ?+< 0>D' J +@' <' ? 0=%>' BA1.+<0+' .>,>.?>' @>' C10C%#D>D' J +@' +@>' <??#.P <0C>!' +@<+' '' @ ?' ?1%D >.?' J1#%D' $>' +.#>' +1' +@> .' D#+E!' +@>E' B =@+' .>%E' 10' @>.' '1.' +@>' '< +@'#%' D ?C@<.=>' 1'' @>.?!' 0' '# 0 ?@ 0=' +@>B' J +@' <%%' +@>' .>F# ? +>' ?#AP A% >?

@>' >K@ %<.<+ 0=' +10>' 1'' +@ ?' %>++>.' @<D' <0' 0?+<0P +<0>1#?' >''>C+!' ? %>0C 0=' +@>' ?C.#A%>?' 1'' +@>' B1?+' + B D!' <0D' C10'.B 0=' +@>' C10' D>0C>' 1'' +@>' 1+@>.?'

@>' ?1%D >.?!' 0' A<.+ C#%<.!' J@1' @<D' .>C> ,>D' J +@' D ??<+ ?'<C+ 10' ?1B>' 0+ B<+ 10' 1'' J@<+' J<?' A<?? 0=' 0' +@>' C1#0C %!' J>%C1B>D' +' J +@' =>0>.<%' >0+@#? <?B L' <0D' >,>.E' @><.+' ?>>B>D' 01J' 0+>0+MU8BdB+@>. 0=' +@>' J ?@>?' 1'' +@> .' @>.1 C' F#>>0' $E' A.1?>C#+ 0=' +@>' ? >=>' J +@' +@>' #+B1?+' , =1#.

@>' <.BE' J<?' <CC1.D 0=%E' D ?+. $#+>D' 0+1' +J1' >0C<BAB>0+?L' 10>' #0D>.' +@>' <.F# ?M #H>' 1'' <D G!' ?#AA1.+>D' $E' +@>' <.+ %%>.E!' +@>' 1+@>.' #0D>.

S 0=‘ >.D 0<0D‘ 10‘ +@>‘ 1AA1? +>‘ ? D>‘ 1’‘ +@>‘ C +E‘ >+J>>0‘ +@>‘ +J1!‘ %<E‘ +@>‘ =<.D>0‘ 1.‘ 1.C@<.D‘ $>'1.>‘ B>0+ 10>D!‘ >K+>0D 0=‘ <‘ %><=#>‘ 0‘ %>0=+@L‘ ?1‘ +@<+!‘ 0‘ 1.D>.‘ +1‘ C100>C+‘ +@>‘ J1.H?‘ 1’‘ +@>‘ +J1‘ C<BA?!‘ +‘ $>C<B>‘ 0>C>??<.E‘ +1‘ =>+‘ A1??>?? 10‘ 1’‘ +@ ?‘ C10+>?+>D‘ =.1#0D!‘ <0D‘ +1‘ C%><.‘ +‘ 1’‘ @>‘ @><,E‘ + B$>.‘ J +@‘ J@ C@‘ +‘ J<?‘ C1,>.>D

@ ?‘ %<$1. 1#?‘ 1A>.<+ 10‘ J<?‘ 0+.#?+>D‘ +1‘ +@>‘ 1B B<0D>.‘ 1’‘ >10!‘ <0D‘ +@>‘ J1.H‘ J<?‘ C1,>.>D‘ $E‘ <‘ D>+<C@B>0+‘ 1’‘ ?>,>0‘ +@1#?<0D‘ +.11A?!‘ A1?+>D‘ 0‘ ?#C@‘ <‘ B<00>.‘ <?‘ +1‘!C@>CH‘ +@>‘ ?<%% >?‘ 1’‘ +@>‘ =<.. ?10‘ 1+J +@?+<0D 0=‘ 6! ‘ ‘ 1.‘ A 10>>.?!‘ J>.>‘ >BA%1E>D‘ 0‘ +@>‘ +<?H!‘ +@>‘ '1.>?+‘ J<?‘ ?1‘ D>0?>!‘ <0D!‘ +@>‘ ?1.+ >?‘ '.1B‘ +@>‘ C +E‘ ?1‘ <001E 0=!‘ +@<+‘ +@>‘ J1.H‘ 1’‘ D>,<?+<+ 10‘ D D‘ 01+‘ <D,<0C>‘ B1.>‘ +@<0‘ +>0‘ A<C>?‘ <‘ D<E!‘ <0D‘ J<?‘ 01+‘ C1BA%>+>D‘ $>'1.>‘ +@>‘ >KA .<+ 10‘ 1’‘ ?>,>0‘ J>>H?‘ @>0‘ +@>‘ <0C >0+‘ =.1,>?!‘ ?1‘ %10=‘ +@>‘ 1.0<B>0+‘T<0D‘A.1+>C+ 10‘ 1’‘+@>‘C +E!‘ J>.>‘ %>,>%%>D‘ +1‘ +@>‘ =.1#0D!‘ A.>A<.<+ 10?‘ J>.>‘ B<D>‘ '1.‘ C100>C+P 0=‘ +@>‘ +J1‘ C<BA?‘ $E‘ <‘ D>>A‘ +.>0C@!‘ +@.1#=@‘ J@ C@‘ +@>‘ B1#0+< 0‘ J<+>.?‘ J>.>‘ B<D>‘ +1‘ '%1J‘L‘ J@ %>‘ +@>‘ $1.D>.?‘ J>.>‘ '1.+ ' >D‘ J +@‘ A<% ?<D>?!‘ C10?+.#C+>D‘ 1’‘ +@>&+ B$>.‘ %<+>%E‘ @>J0!‘ +1=>+@>.‘ J +@‘ ?+.10=‘ +1J>.?‘ 1’‘ B#D‘ 1.‘ C%<E!‘ <..<0=>D‘ <+‘ .>=#%<.‘ 0+>.,<%?‘ 0‘ +@ ?‘ B<00>.!‘ +@>‘ 0,>?+B>0+‘ 1’‘ +@>‘ C +E‘ J<?‘ C1BP A%>+>‘ 10‘ +@>‘ ? D>‘ 1’‘ +@>‘ ,>=< T

?‘ B><0?‘ 1’‘ C1B B#0 C<+ 10‘ ?+ %% .>B< 0>D‘ 1A>0!‘ @1J>,>.!‘ $E‘ +@>‘ 1AA1? +>‘ ? >..<!‘ D>'>0C>?‘ 1’‘ ? B %<.

Q‘ *% 5)) ‘ 8, !‘ 5K 0 ,2$‘ (,F! J !‘ % C‘ 3!‘ 3, %>‘ ‘5K 3%') ‘ 1!‘ ,,,!‘3!‘ ! J‘ 1 1‘ 3! FF,,,! J *$ % 5‘ ‘ %; $ '% ‘ *)‘ 5‘ ‘ C ‘ (! %(, ‘ !‘(! F(,,!

?+.>0=+@!‘ C10? ?+ 0=‘ 1’‘ e+J1‘ ?+10>‘ J<%%?‘ ?>A<.<+>D‘ $E‘ <‘ D>>A‘ +.>0C@!‘ J>.>‘ B<D>‘ +1‘ .#0‘ <%10=‘ +@>‘ .1CHE‘ @> =@+?‘ <0D‘ .<, 0>U‘ 1’‘ +@>‘ B1#0+< 0?‘ #0+ %‘ +@>E‘ +1#C@>D‘ +@>‘ >K+.>0' + >?‘ 1’‘ +@>‘ '1.+ ' C<+ 10?‘ 10‘ +@>‘ A%< 0‘ L‘ <0D‘ +@#?‘ <G<‘ J<?‘ >0C1BA<??>D‘ $E‘ <0‘ #0P $.1H>0‘ % 0>‘ 1’‘C .C#B ,<%%<+ 10

0‘ +@>‘ A.1=.>??‘ 1’‘+@>‘ %<$1. 1#?‘ J1.H!‘ J@ C@‘ 1CC#P A >D‘ ! ‘ B>0‘#0D>.‘+@>‘ 0D>'<+ =<$%>‘ 1B B<0D>.‘ 1’‘ >10‘ '1.‘+@>‘ ?A<C>‘ 1’‘+J 1‘ B10+@?!‘ +‘ J1#%D‘ @<,>‘ $>>0‘ ><?E‘ '1.‘ +@>‘ A>1A%>‘ 1’‘ #<D K!‘ 1.‘1’‘ .<0<D<!‘ $E‘ C11A>.<+ 10‘ J +@‘ +@>‘ ?<%% >?‘ 1’‘ +@>‘ $>? >=>D!‘ +1‘ @<,>‘ A%<C>D‘+@>‘ @. ?+ <0‘ <.BE‘ 0‘=.><+‘A>. %‘ 1B>‘ '>>$%>‘ D>B10?+.<+ 10‘ 1’‘ ?#C@‘ <‘ B1,>B>0+‘ J<?‘ B<D>‘ <+‘ #<D K!‘ $#+‘ +‘ J<?‘ ><? %E‘ D ?C10C>.+>D‘ 0D>>D!‘ %‘ V<=<%‘ J<?‘ H>A+‘ 0‘ C@>CH‘ $E‘ '><.‘ 1’‘ %><, 0=‘ @ ?‘ 1J0‘ +>.. +1.E‘ 1A>0‘ +1‘ @ ?‘ . ,<%!‘ ?@1#%D‘ @>‘ B<.C@‘ <=< 0?+‘+@>‘ @. ?+ <0?’ $D<%%<@!‘ 0‘ +@>‘ B><0‘ J@ %>!‘ %<E‘ 0<C+ ,>‘ 0‘ .<0<D<!‘ 0C#.. 0=‘ +@'>‘ 1D #B‘ <0D‘ C10+>BA+‘ 1’‘ @ ?‘ A>1A%>!‘ J@1‘ ?+ =B<+ G>D‘ @ B‘ <?‘ <‘ @. ?+ <0‘ 0‘ @><.+!‘ <0D‘ <‘ A>0? 10>.‘ 1’‘+@>‘ A<0 ?@‘ ?1,>.> =0?’ @> .‘ D ?C10+>0+‘ =.<D#<%%E‘?J>%%>D‘ 0+1‘ <!‘ .>$>%% 10!‘ J@ C@‘ J<?‘ ?#AA.>??>D‘ $E‘ @ B‘ J +@‘ <?>,>. +E‘+@<+‘ <+‘ %>0=+@‘ 0D#C>D‘ <‘?#%%>0‘ <CF# >?C>0C>‘ 0‘ <‘ .#%>‘ J@ C@!‘ @1J>,>.‘ 0=%1. 1#?!‘ J<?‘ <+‘ %><?+‘ <++>0D>D‘ J +@‘+>BA1.<.E‘?>C#. +E T

@ %>‘+@>‘ C<BA‘ %<E‘ $>'1.>‘ <G<!‘ <‘ ? 0=#%<.‘ B ?P ? 10‘ J<?‘ .>C> ,>D‘ '.1B‘ +@>‘ #%+<0‘ 1’‘ =EA+!‘ J@1‘@<D‘ $>>0‘ ?1% C +>D‘ $E‘+@>‘ 11.?‘ 1’‘ .<0<D<‘+1‘ 0+>.A1?>

L‘ *)5 ‘ 1,)%(!‘ 5‘ ‘ 1!‘,,!‘ ,4!‘FF.!‘ (!‘F,,! J $ '% ‘ %4‘)‘ 3%)%‘ 1!‘,,,!‘ (!‘F!‘ *),(% 5‘ ‘ C ‘(!‘ (F,! J %,,%)%‘ 8, ‘ 5‘ 3%)%

0 +@> . $>@<% J +@ +@> A<0 ?@ ?1,>.> =0? J1
.<0C ?C<0 '. <.?! B>B$>.? 1 < .>% = 1#? C1B B#0 +E
0 5<%>?+ 0>! J>.> $><.>.? 1 D>?A<+C@>?L J@ C@!
<'+>. .>B10?+.<+ 0= J +@ +@> ?1,>.> =0? 10 +@> .
A>.?>C#+ 10 1 +@> 11.?! C10+.<?+>D + J +@ +@>
A.1+>C+ 10 #0 '1. B%E >K+>0D>D $E +@> ?#%+<0 +1 +@>
@. ?+ <0? 0 @ ? D1B 0 10? @> C1B B#0 C<+ 10
C10C%#D>D J +@ B>0<C 0= < .>+<% <+ 10 1 ? B %<.&?>P
,>. + >? 10 +@>?> %<++>.! #0%>?? +@> ?1,>.> =0? D>? ?+>D
'.1B +@> . @1?+ % + >? +1J<.D? .<0<D<
.1B +@> C<BA! +@> +J1 <B$<??<D1.? A.1C>>D>D +1
/<>0! J@>.> +@>E J>.> !.>C> ,>D $E +@> F#>>0 J +@
<%% +@> D>'>.>0C> D#> +1 +@> . @1%E A.1'>?? 10! J@ C@
?>>B>D +1 D>. ,> <DD + 10<% ?<0C+ +E '.1B +@> ?A1+ 0
J@ C@ + J<? >K>.C ?>D @> B>0<C 0= BA1.+ 1'
+@> ?#%+<0 ? C1B B#0 C<+ 10! @1J>,>.! @<D 01 A1J>.
+1 ?@<H> +@> A#.A1?>? 1 >.D 0<0D <0D ?<$>%%<!
J@1 B<D> <0?J>.! +@<+ +@>E @<D #0 '1. B%E 1$?>.,>D
+@> ?<B> A1% CE 0 .>=<.D +1 +@> . <@1B>+<0! <? +1
+@> . @. ?+ <0 ?#$">C+?L $#+ +@<+ +@>E C1#%D 01
%10=>. ?#$B + +1 ?>> +@> . <0C >0+ <0D . =@+'#% 0P
@>. +<0C> 0 +@> @<0D? 1 ?+.<0=>.?L <0D +@<+ '
+@>?> %<++>. J1#%D C10?>0+ +1 % ,> #0D>. +@> . .#%>
<? +.#> <0D %1E<% ?#$">C+?! +@>E ?@1#%D >KA>. >0C>
+@> ?<B> A<+>.0<% 0D#%=>0C> J@ C@ @<D $>>0 ?@1J0
+1 +@> . $.>+@.>0 +@ +@ ? <0?J>. +@> .>,>.>0D
>B ??<. >? .>+#.0>D $<CH +1 +@> 1%E <0D! <CC1BP
A<0 >D $E ?#$?+<0+ <% B<.H? 1 +@> .1E<% '<,1#.! 0 <
E><.%E A>0? 10 1 ! D#C<+?! J@ C@ +@> F#>>0
?>++%>D 0 A>.A>+# +E 10 +@> . B10<?+>.E! +1=>+@>.

I ' 5 V :

J +@ < . C@%E >B$.1 D>.>D ,> %! +@> J1.H 1 '@>.' 1J0 '< .' @<0D?! +1 $>' ?#?A>0D>D 1,>.' +@>' @1%E ?>A#%C@.> ' @>' ?1,>.> =0?' ?#$?>F#>0+%E D>?A<+C@>D +@>' %><.0>D 5>+>.' <.+E.' <?' +@> .' >0,1E +1 +@>' 1?%>B C1#.+! 0 1.D>.' +1 >KA%< 0 +@> .' A.1C>>D 0=?' B1.>' <+ %>0=+@! <0D <,>.+ <0E D ?<?+.1#?' C10?>F#>0C>?' '.1B +@>' @. ?+ <0 .>? D>0+? T

0 +@>' B><0 J@ %>' +@>' ? >=>' J>0+ '1.J<.D J +@ ?A . +L ?H .B ?@>?' <0D ? 0=%>' .>0C10+.>?' +<H 0=' A%<C>' >,>.E D<E $>+J>>0 +@>' @ =@MB>++%>D C<,<%>.?' 10 $1+@ ? D>?' @>?>' C@ ,<%.1#?' C1B$<+?! @1J>,>.! J>.>' D ?C1#.<=>D $E >.D 0<0D! J@1 J1#%D @<,>' C10' 0>D @ ?' 1A>.<+ 10?' +1 ?+. C+ $%1CH<D>! <0D <,1 D>D +@>' #00>C>??<.E >''#? 10 1 '' $%11DL >?A>C <%%E <?' +@>' <DP ,<0+<=>' J<?' B1?+ C1B B10%E 10 +@>' ? D>' 1 '' +@>' >0>BE! '.1B +@>' A>C#% <.' <D<A+<+ 10 1 '' +@> .' +<C+ C?' +1!+@ ?' D>?#%+1.E J<.'<.>' %+@1#=@ ?1B>' B10+@?' @<D >%<A?>D! +@>' $>? >=>D .>">C+>D J +@ ?C1.0 >,>.E ?#B B10?' +1 ?#..>0D>.L .>%E 0=' 10 +@> .' 1J0 .>P ?1#.C>?! <0D ?+ %%' B1.>' 10 +@>' +>BA>?+#1#?' ?><?10 1 '' <#+#B0! 01J '<?+ <D,<0C 0=! J@ C@! '' + D D 01+ $.><H #A +@>' >0C<BAB>0+ <+ 10C>! J1#%D <+ %><?+! $E D>B1% ?@ 0=' +@>' .1<D?! C#+ 1 '' <%% >K+>.0<% C1BP B#0 C<+ 10

0 1.D>.' +1 =#<.D <=< 0?+ +@>?>' BA>0D 0=' >, %?! >.D 0<0D C<#?>D' B1 >' +@<0 < +@1#?<0D @1#?>?! 1.' .<+@>.' @#+?! +1 $>' >.>C+>D! J +@ J<%%?' 1 '' ><.+@ 1.' C%<E! <0D .11'? B<D>' 1 '' + B$>.' <0D + %>?L J@ %>' +@>' C1BM

$ '% ' *),(%' (! (F,,! J)> % ' 8, ' 5K 3%',, ' 1! .,,,! 3! I !

.010 ?1%D >.? C10?+.#C+>D C<$ 0? $E B><0? 1'' A<% P ?<D>? %11?>%E +@<+C@>D J +@ +@> $.<0C@>? 1'' +.>>? @> J@1%> J1.H J<? <CC1BA% ?@>D 0 '1#. D<E?! <0D +@> 0@<$ +<0+? 1'' <G< $>@>%D J +@ <B<G>B>0+ C +E 1''?1% D >D ' C>?! J +@ <%% +? ?+.>>+? <0D ?F#<.>? 0 .>=#%<. 1.D>.! ?A. 0= 0= <? + J>.> $E B<= C 1#+ 1'' +@> =.1#0D! J@ C@ @<D $>'1.> $>>0 C1,>.>D J +@ +@> % =@+ <0D < .E A<, % 10? 1'' +@> C<BA @> 0>J C +E J<? J>%% ?#AA% >D! 1J 0= +1 +@> A.1, D>0C> 1'' +@> F#>>0! 01+ B>.>%E J +@ +@> 0>C>??<. >?! $#+ %#KP #. >? 1'' % '> .<D>.? '%1CH>D +@>.> <? +1 < '< .! '.1B .<=10! <%>0C <! <+<%10 <! <0D >,>0 C %E! '.> =@+>D J +@ C1?+%E B>.C@<0D ?>! <0D J +@ ">J>%.E <0D 1+@>. <.+ C%>? 1'' %#K#.EL ?#C@ <?! 0 +@> 0D =P 0<0+ %<B>0+ 1''<0 1%D C@.10 C%>.! Q +11 1'+>0 C1..#A+ +@> ?1#%? 1'' +@> ?1%D >.E! <0D $. 0= J<?+> <0D D ?P ? A<+ 10 0+1 < C<BA R

@<+ +@ ? J<? 01+ +@> .>?#%+! @1J>,>.! 0 +@> A.>P ?>0+ 0?+<0C>! ? <++>?+>D $E B1.> +@<0 10> @ ?+1. <0 B10= 1+@>.?! 5 >+.1 <.+ .>! +@> +<% <0 ?C@1%<. $>'1.> B>0+ 10>D! J@1 J<? A.>?>0'U<+ +@ ? ? >=>! DJ>%%? J +@ <?+10 ?@B>0+ 1<TT/U> ?>,>.> D>C1.#B <0D B % +<.E D ?C A% 0> J@ C@ >,>.EJ@>.> 1$+< 0>D <B10= +@ ? B1+%>E C10=.>=<+ 10 1'' ?1%D >.? Q @1 J1#%D @<,> $>% >,>D!R ?<E? @>! Q +@<+ +@> <% C <0! +@> ' >.C> ?+#. <0! <0D +@> .#D> 0@<$ +<0+ 1'' +@> 5E.>0>>?! B>0 <CC#?+1B>D +1 D>>D? 1'<+.1C 1#? , 1P %>0C>! <0D +1 $.<J% <0D $<++%> 10 +@> % =@+>?+ 1CP C<? 10? <+ @1B>! ?@1#%D B 0=%> <B C<$%E! 01+ 10%E J +@ 10> <01+@>.! $#+ J +@ 1%>D<0?! < <0C@<0?!

<0D' +@>' J %E' <0D' "><%1#?' 0D<%#? <0L' <%%' % , 0=' +1=>+@>.' 0' @<.B10 1#?' ?#$1.D 0<+ 10' +1' <#+@1. +E!' % H>' B>B$>.?' 1'' 10>' '<B %E!' ?A><H 0=' 10>' +10=#>!' <0D' 0#.+#.>D' #0D>.' <' C1B B10' D ?C A% 0>L' ?1' +@<+' +@>' C<BA' ?>>B>D' % H>' <' C1B B#0 +E' B1D>%%>D' 10' +@>' A. 0C A%>?' 1'' 5%<+1 ?' .>A#$% CR 0' <01+@>.' A<.+' 1'' +@ ?' %>++>.!' J@ C@' J<?' <DD.>??>D' +1' <' %<0>?>' A.>P %<+>!' @>' A<0>=E. G>?' +@>' C<BA' @1?A +<%' 1''+@>' F#>>0!' +@>0' <' 01,>%+E' 0' J<.L' J@ C@!' @>' ?<E?!' Q' ?' ?1' A.1P '#?>%E' ?#AA% >D' J +@' B>D C<%' <++>0D<0+?!' <AA<.<+#?!' <0D' J@<+>,>.' B<E' C10+. $#+>' +1' +@>' .>?+1.<+ 10' 1.' ?1%<C>' 1'' +@>' ? CH!' +@<+' +' ?' ?C<.C>%E' ?#.A<??>D' 0' +@>?>' .>?A>C+?' $E' +@>' B<=0 ' C>0+' >?+<$% ?@B>0+?' 1'' %<0 RT

#. 0=' +@>' ' ,>' B10+@?' J@ C@' +@>' ? >=>' @<D' 01J' %<?+>D!' +@>' J><+@>.' @<D' A.1,>D' #0C1B B10%E' A.1A P + 1#?' +1' +@>' A<0 <.D?!' $> 0=' '1.' +@>' B1?+' A<.+' 1''<' $%<0D' <0D' >F#<%' +>BA>.<+#.>!' J@ %>' +@>' ?#%+.E' @><+?' 1'' D?#B B>.' J>.>' B + =<+>D' $E' C11%' <0D' B1D>.<+>' ?@1J>.?' ?' +@>' <#+#B0<%' ?><?10' <D,<0C>D!' @1JP >,>.!' +@>' C%1#D?' $>=<0' +1' ?>++%>' @><, %E' <.1#0D' +@>' B1#0+< 0?L' <0D' <+' %>0=+@' 10>' 1'+@1?>' ?+1.B?' A.>M

Q' 1%5 G'8, !5 ' C ' 5%,13$ ' ' A'A %,)'',); *% ,(' !'J' !' % C M 0$)(' 0' A' 3%), A' .; Q,4!',,!' 3!/ ' I !J $ '% ' *)' ,')' Z'BA ' ' 5 0%, A' ; 5 ' ' C ' *%!' (!' (F,,,!' (F,.!' ,',)' %)5'R., $' 4%), A 5' A' (F.,,! J :%,4%C'* 13)5!8, ' ( )%',)'0 1' A , % 1C'BA ' 5 ' 3!' 1!,,!' 3!' /! J 5%' , 1$ ' A B, 'A%.' 3 .%,; *),(%5 ' ' '3!' D! 5![')% (10 %)5(%)' A'3%'$ ' BA,(A'0 ' A %; ,) ' 0' A' 5, ' A $'A') ' ., C' A, 'C %')' 1'3% ' 0' 2$, ' '1, %($ $'%(%$ '1%C')5% $,%' 5 ') ' %33 %' ' 4'( ) ,5 5'3 A%3'0$ '%' 0; A%.'% %(@ 5' A'(%13'BA,(A 0,(%(, $!

D >+>D $E +@> A>1A%> 1 <G< $#.?+ '1.+@ J +@ 0C.>P D $%> '#.E! A1#. 0= <, 1%#B > 1 J<+>.?D1JO +@> .1CHE? D>? 1 +@> ? >..<! J@ C@! B 0=% 0= J +@ +@1?> 1 +@> ,>=<! 0#0D<+>D +@> C<BA 1 +@> $>? >=>.?! <0D ?J>A+ <J<E B1?+ 1 +@> '.< %>D ' C>?C10?+.#C+>D '1. +@> #?> 1 +@> C1BB10 ?1%D >.E ?+ %% =.><+>. C<%<B +E $>'>% +@>B 0 +@> D %<A D<+ 10 1 +@> .1<D?! J@ C@! $.1H>O #A! 1. J1.O 0+1 D>>A =#%% >?$E +@> '1.C> 1 +@> J<+>.?! J>.> .>0D>.>D A>.'>C+%E BA<?P ?<$%> %%C1BB#0 C<+ 10 J<?! 1 C1#.?>! ?#?A>0D>D J +@ /<>O! <0D <+>BA1.<.E 0+>..#A+ 10 1 +@> C10P ,1E? ' %%>D +@> C<BA J +@ C10?+>.0<+ 10 @ ? D ?P <?+>.! @1J>,>.! J<? ?A>>D %E .>A< .>D $E +@> F#>>O! J@1! J +@ <O >0>.=E <%J<E?>F#<% +1 +@> 1CC<? 10! C<#?>D A 10>>.? +1 $> <+ 10C> >BA%1E>D O .>P C10?+.#C+ 0= +@> .1<D?L +@> . ,>.? J>.> $. D=>D 1,>.! C<#?>J<E? 0>J %< D! <0D +J1 ?>A<.<+> A<??>? 1A>0>D +@.1#=@ +@> B1#0+< 0?! $E J@ C@ +@> C10,1E? B =@+ , ? + +@> C<BA! <0D .>+#.0 J +@1#+ 0+>..#A+ 0= ><C@ 1+@> M + +@> ?<B >&+ B>! +@> F#>>0 $1#=@+ #A BB>0?> F#<0+ + >? 1 =.< 0 '.1B <%% A<.+? 1 0D<P %#? <! J@ C@ ?@> C<#?>D +1 $> =.1#0D O @>.J0 B %%?L <0D J@>0 +@> .1<D?! J@ C@ >K+>0D>D B1.> +@<O ?>,>O %><=#>? O %>0=+@! J>.> C1BA%>+>D! 6! B#%>? B =@+ $> ?>>0 D< %E +.<,>.? 0= +@> ? >..<! %<D>O J +@ ?#AA% >?! J@ C@ '.10 .M +@<+T + B> '1.J<.D J>.> A1#.>D <$#0D<0+%E! <0D J +@ +@> B1?+ A>.'>C+ .>=#P %<. +E! 0+1 +@> C<BA T

$! % C 3$ 3, % $1 3! FF,, ! J $ '% *),(% 5 C (! (F.,!

?<$>%%< ?' 0>K+' C<.>' J<?' +1' <??>B$%>' 0>J' %>, >?' 1'' +.11A?!' +1' .>% >,>' 1.' .> 0'1.C>' +@1?>' 01J' 0' +@>' C<B A!' <0D' +@>' <%<C. +E' J +@' J@ C@' <%%' 1.D>.?' 1'' B>0!' '.1B' >,>.E' F#<.+>.' 1'' +@>' H 0=D1B!' <0?J>.>D' @>.' ?#B B10?!' ?' J1.+@E' 1'' .>B<.H' #+' @>.' C@ >'' ?1% C +#D>' J<?!' +1' D>, ?>' >KA>D >0+?' '1.' B>>+ 0=' +@>' >01.B1#?' >KA>0D +#.>?' 0C#..>D' $E' +@>' A.1+.<C+>D' 1A>.<+ 10?' 1'' +@>' E><.' 1.' +@ ?' A#.A1?>' ?@>' @<D' .>C1#.?>' +1' %1<0?' '.1B' 0D , D#<%?' <0D' .>% = 1#?' C1.P A1.<+ 10?!' J@ C@' J>.>' 1$+< 0>D' J +@1#+' B#C@' D '' P C#%+E!' '.1B' +@>' =>0>.<%' C10' D>0C> 0' @>.' =11D' '< +@' ?' +@>' ?#B' +@#?' .< ?>D!' <%+@1#=@' >KC>>D 0=%E' %<.=>' '1.' +@<+' A>. 1D!' A.1,>D' 0<D>F#<+>' +1' +@>' >KA>0?>?!' '#.+@>.' ?#AA% >?' J>.>' 1$+< 0>D' '.1B' J><%+@E' 0D , P D#<%?!' J@1?>' %1<0?' J>.>' ?>C#.>D' $E' B1.+=<=>' 1'' +@>' .1E<%' D>B>?0>' L' <0D' <?' <' D>' C >0CE' ?+ %%' .>B< 0>D' 0' +@>' +.><?#.E!' +@>' F#>>0!' <?' <' %<?+' .>?1#.C>!' "*<J0>D' +@>' C.1J0' ">J>%?' <0D' @>.' 1J0' A>.?10<%' 1.0<B>0+?' +1' +@>' B>.C@<0+?' 1'' <.C>%10<' <0D' <%>0C <!' '1.' ?#C@' ?#B?' <?' +@>E' J>.>' J %% 0=' +1' <D,<0C>' 10' +@>B T' #C@' J>.>' +@>' >''1.+?' B<D>' $E' +@ ?' @ =@M?A . +>D' J1B<0' '1.' +@>' '#.+@>.<0C>' 1'' @>.' A<+. 1+ C' >0+>.M

L' $ '% ' *)'5 ' ' C ' *% ,(!' (!' (F.,,,!! J' (A,.!' 5 ' ,1%)(% '%3!' 1!' 5 ' %' %' (%5 '5 ' 8, !' 1!' .,!' 3!+ !' A ' (, C' 0' E%)(,% 6! '0 ,) ')' A '(B)'%)5 ! ')' %' (%' 0' $4, !' A C' B ') 'BA C' 5 1 5' , ' DH6!') ' * 1)(,)'A%' ',.)' %' (% % '$' 0' A ' C%' + B ' P ' $ %(,)' .,!X

BA,(A' %33 % ' 'A%. ' 4)' # !2 1 C' ,(A' %)5')$1 $' 0 ' %' 3 , 5' %) , ' ' A ' 5, (>' C' 0' A ' ($) , ' BA ' K,) 'A%. ' ,)('0$), A 5' $; 3 'B, A', ' . "!# #' %4 %' A B . ' ' , '.% $ ')' A 1 'A% ' A ' 5,. 5' A 0' 0' 1 ' 0' A 1',)'0%. $' 0' A ' 5%$'A !

A. ?>' @>' >K+.<1.D 0<.E' .>?#%+?' J@ C@' ?@>' J<?' >0<$%>D' +1' >''>C+' <.>' %>??' BA, +<$%>' +1' +@>' <#+@1. +E' 1'' @>.' ?+<+ 10!' +@<0' +1' +@<+' A>.'>C+' C10' D>0C>' 0 @>' J ?D1B' <0D' , .+#>' J +@' J@ C@' ?@>' @<D' 0?A .>D' @>.' J@1%>' 0<+ 10!' <0D' J@ C@' ?>C#.>D' +@> .' ><.0>?+' C1P 1A>.<+ 10' 0' <%%' @>.' #0D>.+<H =?' @>' >BA .>' J@ C@' ?@>' +@#?' >K>.C ?>D!' 0D>>D!' J<?' '<.' B1.>' >KP +>0D>D' +@<0' <0E' ?+<+ 10!' @1J>,>.' >K<%+>D!' 1.' <0E' <#+@1. +E!' @1J>,>.' D>?A1+ C!' C<0' C10'>.!' '1.' +' J<?' 1,>.' +@>' @><.+?' 1'' @>.' A>1A%>

1+J +@?+<0D 0=' +@>' , =1#.' J +@' J@ C@' +@>'? >=>' J<?' A.>??>D' <G<' B<D>' 01' D>B10?+.<+ 10' 1'' ?#$P B ?? 10' @>' =<.. ?10' J<?' 0D>>D' =.><+%E' .>D#C>D' 0' 0#B$>.L' +@>' <B B#0 + 10' J<?' 0><.%E' >KA>0D> D'L E>+' +@>.>' ?+ %%' .>B< 0>D' <$#0D<0+' ?#AA% >?' 1'' A.1, P ? 10?' 0' +@>' +1J0!' <0D' 01' ? =0?' 1'' D>?A10D>0CE' <AA><.>D' <B10=' +@>' A>1A%>L' <0D' >,>0' +@>' J1B>0' 1% +@>' A%<C>!' J +@' <' ?A . +' >B#%<+ 0=' +@<+' 1'' +@>' D<B>?' 1'' <0C >0+' <.+@<=>!' '.>>%E' =<,>' #A' +@> .' ''>J>%?!' $.<C>%>+?!' 0>CH%<C>?!' <0D' 1+@>.' A>.?10<%' 1.0<B>0+?!' 1'' J@ C@' +@>' 11. ?@' '>B<%>?' J>.>' >KC>>D 0=%E' '10D!' 0' 1.D>.' +1' D>'.<E' +@>' C@<.=>?' 1''+@>' B>.C>0<. >?

@>' C<BA' 1'' +@>' $>? >=>.?!' 0' +@>' B><0' J@ %>!' J<?' <%?1' =.><+%E' J<?+>D' $1+@' $E' ? CH0>??' <AD' +@>' ?J1.D' <0E!' D>?A10D 0=' #0D>.' A>. %?' <0D' '<+ =#>?' J&@ C@' ?>>B>D' +1' @<,>' 01' >0D! 2 #%&DTU,>0' <+' +@ ?' %<+>' @1#.' @<,>' <$<0D10>D' +@>' ? >=>' L' <0D' +@>E' ><.0>?+%E' ?1% P C +>D' +@>' F#>>0 ?' <AA><.<0C>' 0' +@>' C<BA!' 0' +@>' @1A>' +@<+' ?@>' J1#%D' @>.?>%''C1#0+>0<0C>' +@ ?' B><?#.>!' 10' #+0>?? 0=' +@> .' ?#''>. 0=?' +@>.?!' <0D' $E' '<.' +@>

%<.=>.' A<.+!' <0K 1#?%E' D>? .>D' +@>' F#>>0?' , ? +!' <?' % H>%E' +1' F# CH>0' +@>' 1A>.<+ 10?' 1'' +@>' ? >=>!' <0D' $. 0=' +' +1' <' '<,1#.<$%>' ??#>' @>.>'?>>B>D' +1' $>' <' , .+#>' 0' @>.' A.>?>0C>!' J@ C@!' 10' ?1B>' <CC1#0+' 1.' 1+@>.!' B<D>' +' ><.0>?+%E' D>? .>D' $E' <%%

?<$>%%<' E >%D>D' +1' +@>' =>0>.<%' J ?@!' <0D!' 10' +@>' 9+@' 1,>B$>.!' <.. ,>D' $>'1.>' +@>' C<BA!' <++>0D>D' $E' +@>' 0'<0+<' ?<$>%%<!' +@>' <.D 0<%' 1'' A< 0!' @>.' '. >0D' +@>' <.C@ 10>??' 1'' 1E<!' <0D' 1+@>.' %<D >?' 1'' +@>' .1E<%' @1#?>@1%D' @>' 0@<$ +<0+?' 1'' <G<!' ?<E?' >.0<%D>G!' % 0>D' +@>' $<++%>B>0+?' <0D' @1#?>+1A?!' +1' =<G>' <+' +@>' =% ++>. 0=' C<,<%C<D>' <?' +' >B>.=>D' '.1B' +@>' D>A+@?' 1'' +@>' B1#0+< 0?!' <B D?+' '%<#0+ 0=' $<0P 0>.?' <0D' ?+.< 0?' 1'' B<.+ <%' B#? CL' J@ %>' +@>' A<0 ?@' C<,<% >.?' +@.10=>D' '1.+@' 0' <' $1DE' '.1B' +@>' C<BA' +1' .>C> ,>' +@> .' $>%1,>D' B ?+.>??!' <0D' =<,>' @>.' +@>' B1?+' <0 B<+>D' J>%C1B>' Q' @>'C<B>!R?<E?' <.+E.!' Q' ?#.P .1#0D>D' $E' <' C@1 .' 1'' 0EBA@?!' <?' '' +1' C>%>$.<+>' +@>' 0#A+ <%?' 1'' @>.' C@ %DL' <0D' &@>.' A.>?>0C>' ?>>B>D' <+' 10C>' +1' =%<DD>0' <0D' .><0 B<+>' 1#.' ?A . +?!' D.11A 0=' #0D>.' %10=' , = %?!' D<0=>.?!' <0D' '<+ =#> R' 01+@>.' J . +>.!' <%?1' A.>?>0+!' .>B<.H?' +@<+' '.1B' +@>' B1B>0+' 1'' @>.' <AA><.<0C>!' <' C@<0=>' ?>>B>D' +1' C1B>' 1,>.' +@>' ?C>0>' 1' B1.>' 1'' +@>' C.#>%' ?H . B ?@>?!' J@ C@' @<D' $>'1.>' 1CC#..>D' >,>.E' D<EL' 01' .>A1.+' 1'' <.+ %%>.E!' 1.' C%<?@ 0=' 1'' <. B?!' 1.' <0E' 1'' +@>' .#D>' ?1#0D?' 1'' J<.' J>.>' +1' $>' @><.D!' $#+' <%%' ?>>B>D' D ?A1?>D' +1' .>C1OC P % <+ 10' <0D' A><C> T

L' *$ %' 5 ' ' % %(, ' ' !' (! 8, !' 5K 3%') ' 1!' .,,,!' 3!' ' F(,,!' J' $ '% ' *)' 5 ' ' J' !' % C,' 3!' A ?+!' >A' C ' (!' (FF!' (FF,! J % ' FFF!
' '

@>' 11.?' A.1$<$%E' 0+>.A.>+>D' ?<$>%%< ?' , ? +' 0+1' <0' <??#.<0C>' +@<+' +@>' @. ?+ <0' <. BE' J1#%D' 0>,>.' . ?>' '.1B' $>'1.>' +@>' A%<C>' #0+ %' +?' ?#..>0D>.' @<+>,>.' @1A>?' +@>E' @<D' 10C>' >0+>.+< 0>D' 1'' J><.EP 0=' 1#+' +@>' $>? >=>.?!' J> >' +@>.>'1.>' 01J' D ?A>%%>D')<CC1.D 0=%E!' <' '>J' D<E?' <'+>.' +@>' F#>>0 ?' <.. ,<%!' J>' ' 0D' +@>B!' A.1A1? 0=' <' A<.%>E' '1.' <..<0= 0=' +>. B ?' 1'' C<A +#%<+ 10' &

0' +@>' +@ .D' D<E' <'+>.' @>.' <.. ,<%!' ?<$>%%<'.>, >J>D' @>.' <. BE!' ?+.>+C@>D' 1#+' 0' 1.D>.' 1'' $<++%>' <%10=' +@>' ?%1A>' 1'' +@>' J>?+>.0' @ %%?' L' <'+>.' J@ C@!' ?@>' A.1C>>D>D' +1' .>C1001 +.>' +@>' $>%><=#>.>D' C +E!' <CC1BA<0 >D' $E' +@>' H 0=' <0D' +@>' <.D 0<%' 1'' A< 0!' +1=>+@>.' J +@' <' $. %% <0+' >?C1.+' 1'' +@>' A<0 ?@' C@ ,<%.E' 0' +@>' ?<B>' D<E!' <' C10'>.>0C>' J<?' 1A>0>D' J +@' +@>' >0>BE' +@.1#=@' +@>' * ' 1'' >10' L' <0D' <0' <. B ?+ C>' <..<0=>D!' +1' C10+ 0#>' #0+ %' +@>' 1%D' B10<.C@' V<M' =<%!' J@1' +@>0' %<E' <+' #<D K!' C1#%D' $>' 0'1.B>D' 1'' +@>' .><%' C10D + 10' 1'' +@>' $>? >=>D!' <0D' @ ?' 0?+.#CP + 10?' $>' .>C> ,>D' D>+>.B 0 0=' +@>' C1, .?>' +1' $>' <D1A+>D

@>' %C<ED>' 1'' <G<' .>A.>?>0+>D' +1' @ ?' B<?+>.' +@>' %1J' ?+<+>' +1' J@ C@' +@>' =<.. ?10' J<?' .>D#C>D' $E' +@>' %1??' 1''% ,>?' <0D' +@>' '< %#.>' 1''<BB#0 + 10' + %%' @>' >KA.>??>D' ?#C@' C10' D>0C>' 0' +@>' ?A . +' 1''@ ?' A>1A%>' +@<+' @>' #0D>.+11H' +1' B<H>' =11D' @ ?' D>'>0C>' ?1B>' + B>' %10=>.!' A.1, D>D' <0E' .><?10<$%>' >KA>C+<+ 10' 1'' ?#CC1#.' C1#%D' $>' <''1.D>D' L' 1+@>.J ?>!' +' J1#%D' $>' <' B>.>' J<?+>' 1'' % '>!' <0D' B#?+' D>A. ,>' @ B' 1'' ?#C@' ,<0+<=>' =.1#0D' <?' @>' 01J' A1??>??>D' '1.' >0'1.C 0=

<0 @101#.<$%> C<A +#%<+ 10 @> 1?%>B A. 0C>
<CF# >?C>D 0 +@> .><?10<$%>0>?? 1'' +@>?> .>A.>?>0P
+<+ 10?' >' A< D <''"#?+ +. $#+>' +1' @ ?' $.<,>'H 0?B<0
D' <@E> ?' %1E<%+E! <0D +@> =<%%<0+.E 1'' @ ?' D>P
'>0C>'L' $#+!' C10'>?? 0=' <+' +@>' ?<B>'+ B>' @ ?' 1J0' 0<P
$ % +E' +1'.>% >,>' @ B! <#+@1. G>D' @ B' +1'0>=1+ <+>' +@>'
$>?+' +>.B?' 1'' ?#..>0D>.' J@ C@' @>' C1#%D' '1.' @ B?>%''
<0D' =<.. ?10 T

' B#+#<% D>? .>' 1'' +>.B 0<+ 0=' +@>' %10=' A.1P
+.<C+>D' @1?+ % + >?' 0'#?>D' <' ?A . +' 1''B1D>.<+ 10' 0+1'
$1+@' A<.+ >?!' J@ C@' =.><+%E' '<C % +<+>D' +@>' <D"#?+P
B>0+' 1'' +@>' <.+ C%>?' >.D 0<0D' ?@1J>D' 010>' 1''
+@>' <..1=<0+' $><. 0=' J@ C@' B<.H>D' @ ?XC10D#C+' +1P
J<.D?' +@>' #0'1.+#0<+>' A>1A%>' 1'' <%<=<!' J@>+@>.'
'.1B' <' C10,C+ 10' 1'' +?' BA1% CE!' 1.!' <?' ?' B1.>'
A.1$<$%>!' $>C<#?>' +@>' C +E' 1'' <G<' J<?' @>.?>%'' 0' <'
C10D + 10' +1' <??#B>' <' B1.>' BA1? 0=' <++ +#D>' @>'
A. 0C A<% ?+ A#%<+ 10?' 1'' +@>' +.><+E' J>.>!' +@<+' +@>'
'1.> =0' B>.C>0<. >?' >BA%1E>D' 0' +@>' D>'>0C>' 1'' +@>'
A%<C>' ?@1#%D' $>' <%%1J>D' +1' B<.C@' 1#+' J +@' +@>'
@101#.?' 1'' J<.L' +@<+' +@>' C +E' ?@1#%D' $>' D>% ,>.>D' #A'
+1' +@>' @. ?+ <0?L' $#+' +@<+' +@>' 0<+ ,>?' B =@+' @<,>'
+@>' C@1 C>' 1'' .>+ . 0=' J +@' +@> .' A>.?10<% >''>C+?' !
J@>.>' +@>E' % ?+>DL' 1.' 1'' 1CC#AE 0=' +@>' ?#$#.$?!' <?
?#$">C+?' 1'' +@>' <?+ % <0' C.1J0!' % <$%>' 10%E' +1' +@>'
?<B>' +. $#+>' J@ C@' +@>E' A< D' +1' +@> .' 1?%>B

! % C ' 3$ ' 3, ! %) ' IH! J *% 5)) ' 8, ! 5 >'
3! FFF! J *)5 ' 1! 5 ' ' 0 ,2$ ' '5K 3% ') ' 1! ,,,! 3!
%4 ' 1! ,,,! 3! D ! J ' : %>' 6!
,)5 G 5 ' *% 4%+% ')% ' !

' 7

.#%>.?!' <0D' ?>C#.>D' 0' +@>' >0"1EB>0+' 1'' +@> .' A.1P A>.+E!' .>% = 10!' %<J?!' <0D' #?<=>? T

0' +@>' 6+@' D<E' 1'' >C>B$>.' 64:!' >.D 0<0D' <0D' ?<$>%%<' +11H' A1??>?? 10' 1'' <G<!' <+' +@>' @><D' 1''+@> .' %>= 10?!' <B D' +@>' . 0= 0=' 1'' $>%%?!' +@>' A><%?' 1''<.+ %%>.E!' <0D' <%%' +@>' 1+@>.' #?#<%' <CC1BA<0 B>0+?' 1'' +@ ?' +. #BA@<0+' C>.>B10EL' J@ %>' +@>' ?+<0D<.D' 1'' +@>' .1??!' '%1<+ 0=' '.1B' +@>' <0C >0+' $<++%>B'>0+?' 1'' +@>' C +E!' A.1C%< B>D' +@>' +. #BA@' 1'' +@>' @. ?+ <0' <.B?' @>' $.<,>' <%C<ED>!' D' <@E>!' >KA>. P >0C>D' <' .>C>A+ 10' '.1B' +@>' ?1,>.> =0?' ,>.E' D ''>.>0+' '.1B' +@<+' 1''+@>' $1%D' D>'>0D>.' 1'' <%<=<' >' J<?' %1<D>D' J +@' C , % + >?' <0D' A.>?>0+?L' <0D' +@>?>' <C+?' 1'' C1#.+>?E' ?1' J10' #A10' @?' @><.+!' +@<+' @>' >KP A.>??>D' <' J %% 0=0>??' +1' >0+>.' 0+1' +@> .' ?>., C>' ?<$>%%< ?' C1BA% B>0+?!R' ?<E?' +@>' .<$ C' @ ?+1. <0' D. %E!' Q' J>.>' .>A< D' 0' B1.>' ?#$?+<0+ <%' C1 0 R

D' <@E>' J<?' ?110' A.>,< %>D' 10' +1' , ? +' @ ?' .1E<%' H 0?B<0' %' V<=<%' <+' #<D K!' '1.' +@>' A#.A1?>' 1''#.= 0=' @ ?' ?#$B ?? 10' +1' +@>' @. ?+ <0' ?1,>.> =0?' 0' @ ?' 0+>., >J' J +@' +@<+' A. 0C>!' @>' .>A.>?>0+>D' +@>' '.# +%>??0>??' 1'' <0E' <++>BA+' +1' J +@?+<0D' +@>' <CC#P B#%<+>D' '1.C>?' 1'' +@>' A<0 ?@' B10<.C@ >?L' +@<+' @>' J1#%D' 10%E' ?>>' +1J0' <'+>.' +1J0' A<.>D' <J<E' '.1B' @ ?' +>.. +1.E!' #0+ %' 01' =.1#0D' J<?' %>'+' '1.' @ B' +1' ?+<0D' 10!' <0D' B<H>' +>.B?' J +@' +@>', C+1.' >' .>B 0D>D' @ B!' +@<+' +@>' $<%>'#%' @1.1?C1A>' 1'' $D<%%<@' @<D' A.>P D C+>D' +@>' D1J0'<%%' 1'' .<0<D<!' <0D' +@<+' >KA>. >0C>

T' 5#%=<.!' .10C<D>'%1?' >E>?' >$>%!' D>' %1?' 1.?C1?!' %$' ' <+1%C1?!' C' CKK,' O' / <001%!' C' K,

@<D <$#0D<0+%E ?@1J0 @1J ,< 0 + J<? +1 ?+.#==%>
<=< 0?+ +@> + D> 1'' D>?+ 0E @> #0'1.+#0<+> B10P
<.C@ % ?+>0>D! ?<E? +@> .<$ <0 <00<% ?+! J +@1#+ ?1
B#C@ <? B1, 0= <0 >E>% DL <0D! <'+>. < %10= <0D
D>>A B>D +<+ 10! .>A% >D J +@ +@> .>? =0<+ 10 C@<.<CP
+>. ?+ C 1''+@> 1?%' B! Q @<+ %%<@ J %%?! @> $. 0=?
+1 A<?? 0 @ ? 1J0 J<E <D @> 01+ D>C.>>D +@>
'<%% 1'' .<0<D<! +@ ? =11D ?J1.D B =@+ @<,> ?<,>D
+L $#+ @ ? J %% $> D10>R +J<? +@>0 <..<0=>D +@<+
+@> A. 0C A<% C + >? 1'' %B>. <! #<D K! <0D +@> .
D>A>0D>0C >?! C10?+ +#+ 0= +@> D1B< 0 1'' % V<=<%!
?@1#%D $> '1. B<%%E ?#..>0D>.>D $E +@<+ A. 0C> +1 >.P
D 0<0D <0D ?<$>%%<! J@1 ?@1#%D 0?+<0+%E A.1C>>D <+
+@> @><D 1''+@> .< .BE +1 +<H> A1??>?? 10 1''+@>B T

0 +@> 9+@ D<E 1'' >C>B$>.! +@>.>'1.>! +@> A<P
0 ?@ ?1,>.> =0?! J +@1#+ <%%1J 0= +@>B?>%,>? 1. +@> .
"<D>D +.11A? <0E + B> '1. .>A1?>! B<.C@>D 1#+ 1''
+@> =<+>? 1'' <G<! S 0= >.D 0<0D 1CC#AE 0= +@>
C>0+.>! <0D +@> F#>>0 +@> .><.' 1''+@> <.BE @> .
.1#+> %<E <C.1?? +@> B1?+ ?<,<=> D ?+. C+ 1''+@> %10=
? >..< J@ C@ ?+.>+C@>? +1J<.D? %B>. <! %><D 0=
+@.1#=@ B<0E <' 0<..1J A<??! J@ C@ <' @<0D'#% 1''
.>?1%#+> 11.?! ?<E? <0 >E>MJ +0>??! B =@+ @<,>
B<D> =11D <=< 0?+ +@> J@1%> @. ?+ <0 <.BE! 1,>.
B1#0+< 0? J@1?> A><H? J>.> %1?+ 0 C%1#D?! <0D
,<%%>E? J@1?> D>A+@? J>.> 0>,>.' J<.B>D $E <' ?#0
@>!J 0D? J>.> >KC>>D 0=%E $%><H! <0D +@> J><+@>.

Q *)5 1,)%(,)5 1%5 G 8, 5 C
%4 1! ,,,! (! F ! J 5%' *% ,(! ! (! F(,,! J % 1
*),(% 5 3! ! J 4 ,) ,4! ,! (! F.,!

0C%>B>0+!' ?1' +@<+' B>0' <?' J>%%' <?' @1.?>?!' >K@<#?+>D $E' +@>' '<+ =#>?' 1'' A.>, 1#?' ?>., C>!' J>.>' $>0#B$>D' $E' +@>' 0+>0?>' C1%D!' <0D' B<0E' 1'' +@>B' '.1G>0' +1' D><+@' <0E' B1.>!' %1? 0=' +@> .' J<E' 0' +@>' 0P +. C<C >?' 1'' +@>' ? >..<!' J1#%D' @<,>' >KA>. >0C>D' +@>' ?<B>' B ?>.<$%>' '<+>!' @<D' +' 01+' $>>0' '1.'+@>' <.F# ?' 1'' <D G!' J@1?>' +>0+' J<?' A +C@>D' 10' 10>' 1''+@>'%1'+ P >?+' @ %%?!' <0D' J@1' C<#?>D' $><C10M' .>?' +1' $>' % =@+>D' <.1#0D' +!' 0' 1.D>.' +1' =# D>' +@>' ?+.<==%>.?' $<CH' +1' +@> .' F#<.+>.?

+' 01' =.> +' D ?+<0C>' '.1B' %B>. <!' >.D 0<0D' J<? B>+!' C10'1.B<$%E' +1' +@>' A.>, 1#?' <..<0=>B>0+!' $E %' V<=<%!' >?C1.+>D' $E' <' 0#B>.1#?' $1DE' 1'' 1?%>B C<,<% >.?' >.D 0<0D' C1B B<0D>D' @ ?' 01$%>?' +D' . D>' '1.J<.D' <0D' .>C> ,>' +@>' 11. ?@' A. 0C>' Q' ?' <AP A><.<0C>!R' ?<E?' <.+E.!' J@1' J<?' 0' +@>' .1E<%' .>+ P 0#>!' W' +1#C@>D' BE' ?1#%' J +@' C1BA<?? 10L' '1.!' <%P +@1#=@' <' %<J%>??' $<.$<. <0!' @>' J<?' <' H 0=!' <0D' @<D' = ,>0' ? =0<%' A.11'?' 1'' @>.1 ?B R' %' V<=<%!' J +@1#+' J< + 0=' +1' .>C> ,>' +@%>' C1#.+>? >?' 1'' +@>T' A<0 ?@' 01P $%>?!' +@.>J' @ B?>%'' '.1B' @ ?' @1.?>!' <0D' <D,<0C>D' +1J<.D?' >.D 0<0D' J +@' +@>' D>? =0' 1'' H ?? 0=' @ ?' @<0DL' $#+' +@>' %<++>.!' .>$#H 0=' @ ?' '1%%1J>.?' '1.' +@> .' Q' .#?+ C +E' R' 0' <%%1J 0=' ?#C@' <0' <C+' 1'' @#B % <+ 10' 0' +@>' #0'1.+#0<+>' B10<.C@!' A.>,< %>D' 10' @ B' +1' .>B1#0+!' <0D' +@>0' .1D>' $E' @ ?' ? D>' +1J<.D?' %P B>. < T

W' !' % C ' 3$ ' 3, !' 3!' D ! J $ '% ' *),(%' (!' (,!' FFF, J *% 5)) ' 8, !' 5K >' J *)5 ' 1!' 5 ' ' %4 ' 0 ,2$ ' ' 5K 3%') ' 1!' ,,,' 3! 1!' ,,,!' (!' F !

@ ?' C +E' J<?' 10>' 1'' +@>' B1?+' A.>C 1#?' ">J>%?' 0' +@>' D <D>B' 1'' .<0<D<' +' @<D' <B<??>D' =.><+' J><%+@' $E' +?'>K+>0? ,>' C1BB>.C>' J +@' E. <!' =EA+!' <0D' '. C<L' <0D' +?' C1.?< .?' @<D' '1.' <=>?' $>>0' +@>' +>..1.' 1'' +@>' <+<%<0' <0D' 5 ?<0' B<. 0>' +' B =@+' @<,>' ?+11D' <' ? >=>' <?' %10=' <?' +@<+' 1'' <G<L' $#+' +' J<?' 01J' ?#..>0D>.>D' J +@1#+' <' $%1J!' 10' C10D + 10?' ? B %<.' +1' +@1?>' =.<0+>D' +1' +@>' '1.B>.' C +E' '+>.' <%%1J 0=' ?1B>' D<E?' '1.' +@>' .>'.>?@B>0+' 1'' +@> .' J><. >D' '1.C>?' 0' +@ ?' A%><?<0+' .>= 10!' J@ C@!' ?@>%P +>.>D' '.1B' +@>' $%><H' J 0D?' 1''+@>' 1.+@' $E' +@>' ? >..<' +@>E' @<D' %<+>%E' +.<,>.?>D!' <0D' '<00>D' $E' +@>' =>0+%>' $.>>G>?' 1'' +@>' >D +>..<0><0!' ?' C1BA<.>D' $E' <.P +E.' +1' +@>' =<.D>0?' 1'' +@>' >?A>. D>?!' +@>' ?1,>.> =0?' >?+<$% ?@>D' <' ?+.10=' =D.. ?10' +@>.>' #0D>.' +@>' 1BP B<0D>.' 1'' >10!' <0D' +@>0!' ?+. H 0=' <=< 0' 0+1' +@>' .>C>??>?' 1'' +@>' B1#0+< 0?!' B<.C@>D' 10' #<D K!' J@ C@!' <'+>.' ?1B>' 1AA1? + 10' 10' +@>' A<.+' 1''+@>' A1A#P %<C>!' +@.>J' 1A>0' +?' =<+>?' +1' +@>B ' @>' ?#..>0D>.' 1'' +@>?>' A. 0'C A<%' C + >?' J<?' '1%%1J>D' $E' +@<+' 1'' <%%' +@>' ?#$1.D 0<+>' D>A>0D>0C >?' $>%10= 0=' +1' %' V<M' =<%?' +>.. +1.E!' C1BA.>@>0D 0=' <' B#%+ +#D>' 1'' @<BP %>+?' ?C<++>.>D' <%10=' +@>' =.>>0' ? D>?' 1'' +@>' B1#0+< 0' C@< 0' +@<+' ?+.>+C@>D' '.1B' .<0<D<' +1' +@>' C1<?+' 1' <%%' +@>?>' A%<C>?' +@>' ?<B>' % $>.<%' +>.B?!' 0' .>=<.D' +1' A>.?10<%' . =@+?' <0D' A.1A>.+E!' J>.>' ?>C#.>D' <?' +1' <G<

?' <0' >F# ,<%>0+' '1.' +@>?>' $.1<D' D1B< 0?!' +@>' 11. ?@' C@ >'' J<?' A%<C>D' 0' A1??>?? 10' 1'' +@>' " +' 1.' D ?+. C+!' 1'' 0D<.<G!' +@>' ,<%>' 1'' %@<#. 0!' <0D

@<%'' +@>' ?<%+MA +?' 1'' <%>@<!' +1=>+@>.' J +@' <' C1O? P
D>.<$%>' .>,>0#>' 0' B10>E' >' J<?!' B1.>1,>.!' +1'
.>C> ,>' +@>' + +%>' 1'' S 0=' 1'' 0D<.<G!' <0D' +1' .>0D>.'
@1B<=>' '1.' @ ?' >?+<+>?' +1' +@>' C.1J0' 1'' <?+ %>

@ ?' ?@<D1J' 1'' .1E<%+E' C1#%D' 01+' %10=' <B#?>' +@>'
B 0D' 1'' +@>' #0'1.+#0<+>' A. 0C>' >' A 0>D' <J<E'
<B D' +@>' ?C>0>?' 1''@ ?' <0C >0+' >B A .>L' <0D!' <'+>.' >KP
A>. >0C 0=' ?1B>' 0?#$1.D 0<+ 10' 10' +@>' A<.'' 1'' @ ?'
0>J' ,<??<%?!' @>' D>+>.B 0>D' +1' .>% 0F# ?@' @ ?' A>++E'
A. 0C A<% +E!' <0D' J +@D.<J' '1.' >,>.' '.1B' @ ?' 0<+ ,>'
%<0D' <, 0=' .>C> ,>D' <' %<.=>' ?#B' 1'' B10>E!' <?' <0'
0D>B0 ' C<+ 10' '1.' +@>' >0+ .>' C>?? 10' 1'' @ ?' +>.. +1P
. <%' . =@+?' <0D' A1??>?? 10?' +1' +@>' <?+ % <0' C.1J0!' @>'
A<??>D' 1,>.' +1' '. C<!' J@>.>' +' ?' .>A1.+>D' @>' J<?'
A%#0D>.>D' 1''@ ?' A.1A>.+E' $E' +@>' $<.$<. <0?!' <0D' C10P
D>B0>D' +1' ?+<.,>' 1#+' +@>' .>B< 0D>.' 1'' @ ?' D<E?' 0'
B ?>.<$%>' 0D =>0C> T

@>'?#?A C 1#?'C .C#B?+<0C>?'<++>0D 0='+@ ?'A. 0C> ?'
<CC>?? 10' +1' +@>' +@.10>!' +@.1J' <' D<.H' C%1#D' 1,>.' @ ?'
'<B>!' J@ C@' J1#%D' 1+@>.J ?>' ?>>B!' <+' %><?+' <?' '<.' <?'
@ ?' A#$% C' % '>' ?' C1OC>.0>D!' +1' $>' #0?+< 0>D' $E' <0E'
1AA.1$. 1#?' <C+ M' >' A1??>??>D' ?#C@' >0>.=E!' +<%>0+!'
<0D' B % +<.E'?C >0C>' <?!' @<D' @>' $>>0' '1.+#0<+>'>01#=@'
+1' #0 +>' +@>' 11. ?@' 0<+ 10' #0D>.' @ B' $E' <0' #0P
D ?A#+>D' + +%>!' B =@+' @<,>' A1?+A10>D' +@>' '<%%' 1'' .<P
0<D<' '1.' B<0E' E><.?!' ?' +' J<?!' +@>?>' ,>.E' +<%>0+?!

L' ' $4,) ' (,3(,)' D! J !' % C ' 3!' 3, !'
5 ' 3%)%') !' 3!' ! J :%' ,4!' ,,,!' 3!' FFF,! J *)5 ' >'
,)5 G' 5 ' *% 4%+% ')% ' !' 1,)%(!' 5 ' ' %4 ' 1!' ,,,!'
%) ' I I J *% 5)) ' 8, !' 5K >' 33!' D J 1% 5 G' 8, '
0 ,2$ ' ' 5K 3%') ' 1!' ,,,!' 3!' !' (!' F(,,,!

$E' D , D 0=' +@>' ?+<+>' 0' @ ?' '<,1#.!' ?>. ,>D' 10%E' +1' A.>C A +<+>' +?' .# 0

6: ' @>' A<0 ?@' ?1,>.> =0?!' @<, 0=' <CC1BP A% ?@>D' +@>' 1$">C+' 1'' +@>' C<BA< =0!' <'+>.' ?+<+ 10 0=' A<.+' 1'' +@> .' '1.C>?' 10' ?#C@' A1 0+?' <?' J1#%D' ?>C#.>' +@>' A>. B<0>0C>' 1'' +@> .' C10F#>?+?!' .>+#.0>D' J +@' +@>' .>B< 0D>.' +1' /<>0!' J@>.>' +@>E' D ?$<0D>D' +@>' <. BE' 10' +@>' 6+@' 1'' /<0#<.E' 6: ' @>' %1??>?' ?#?+< 0>D' $E' +@>' +.11A?!' D#. 0=' +@>' J@1%>' A>. 1D' 1''+@> .' A.1P %10=>D' ?>., C>!' B#C@' >KC>>D>D' +@1?>' 1'' <0E' '1.B>.' E><.!' <B1#0+ 0=' +1' 01+' %>??' +@<0' 7 ! ' B>0!' $E' '<.' +@>' %<.=>.' A.1A1.+ 10' 1'' J@1B' <.>' ?< D' +1' @<,>' '<%%>0' , C+ B?' +1' D ?><?>?' 0C D>0+' +1' ?>,>.>' <0D' %10=' C10P + 0#>D' @<.D?@ A?' <0D' >KA1?#.> T

@#?' +>.B 0<+>D' +@>' > =@+@' E><.' 1'' +@>' J<.' 1'' .<0<D<L' <' E><.' B1.>' =%1. 1#?' +1' +@>' @. ?+ <0' <.B?!' <0D' B1.>' BA1.+<0+' 0' +?' .>?#%+?!' +@<0' <0E' 1'' +@>' A.>C>D 0=' #. 0=' +@ ?' A>. 1D!' <0' <.BE' 1''4 ! ' B>0' @<D' H>A+' +@>' ' >%D!' <B D' <%%' +@>' 0C%>B>0C >?' 1'' J 0+>.!' '1.' B1.>' +@<0' ?>,>0' B10+@?L' <0' >''1.+' ?C<.C>%E' A<.<%%>%>D' 0' +@>?>' + B>?!' J@>0' $1+@' +@>' <B1#0+' 1''%>, >?' <0D' A>. 1D' 1'' ?>., C>' J>.>' 10' +@>' % B +>D' ?C<%>' <D<A+>D' +1' +@>' >K =>0C >?' 1'' '>#D<%' J<.M' '<.> '

#AA% >?' '1.' +@ ?' BB>0?>' @1?+!' 01+J +@?+<0D 0=' +@>' ?>,>.>' '<B 0>' 1'' +@>' A.>C>D 0=' E><.!' J>.>' A#0CM

L' N$, %')% ' 5' %')' B< 0+< 0>D' ' @1.?>' <0D' 4! ' 1!' ,.!' 0 !' I !' J' 4% (%' '11+' #0D>.' +@>' 1#0+' D>' '#M C ' 5' %')' 1!' ,,!' 0 !' >0+> '' '1.' +@>' ?A<C>' 1'' >=@+' I! B10+@?' D#. 0=' +@?' ?>=>' >>' ' A' (, C' 0' ., ' %) V#0 =<!' 0<%>?D> >, %<!A' D D!

+#<%%E' '#.0 ?@>D! 0' ?A +>' 1'' >,>.E' >B$<..<??B>0+'
A.>?>0+>D' $E' +@>' J<0+' 1'' 0<, =<$%>' . ,>.?!' <0D' +@>'
0+>.A1? + 10' 1''<' A.>C A +1#?' <0D' A<+@%>?? ? >..<
@>' @ ?+1.E' 1''+@ ?' C<BA< =0' ?!' 0D>>D!' B1?+' @1P
01#.<$%>' +1' +@>' C1#.<=>!' C10?+<0CE!' <0D' +@1.1#=@'
D ?C A% 0>' 1''+@>' A<0 ?@' ?1%D >.!' <0D' +1' +@>' A<+. 1+P
?B' <0D' =>0>.<%' .>?1#.C>?' 1''+@>' 0<+ 10L' $#+' B1?+' 1''
< ' +1' ?<$>%%<' @>' +' J<?' J@1' '1.+ ' >D' +@>' + B D'
C1#0C %?' 1''+@>' %><D>.?' <'+>.' +@>' D ?<?+>.?' 1''+@>' =<.P
D>0!' <0D' >0C1#.<=>D' +@>B' +1' A>.?>,>.>' 0' +@>' ? >=>'
@>' A.1C#.>D' <%%' +@>' ?#AA% >?!' C10?+.#C+>D' +@>' .1<D=!'
+11H' C@<.=>' 1''+@>' ? CH!' <0D' '#.0 ?@>D' <+' 01' % ++%>'
A>.?10<%' ?<C. ' C>' +@>' B B>0?>' ?#B?' D>B<0D>D' '1.
C<..E 0=' 10' +@>' J<.L' <0D' J@>0' <+' %<?+' +@>' @><.+?' 1'
+@>' ?1%D >.?' J>.>' '< 0+ 0=' #0D>.' %10=' A.1+.<C+>D' ?#'P
'>. 0=?!' ?@>' <AA><.>D' <B10=' +@>B!' % H>' ?1B>' C>%>?P
+ <%' , ? +<0+!' +1' C@>>.' +@> .' '<%+>. 0=' ?A . +?!' <0D'
0?A .>' +@>B' J +@' @>.' 1J0' >0>.=E' @>' <++<C@B>0+'
+1' ?<$>%%<' ?>>B>D' +1' $>' <' A>. ,<D 0=' A. 0C A%>!' J@ C@'
<0 B<+>D' +@>' J@1%>' 0<+ 10' $E' 10>' C1BB10' BA#%?>!'
BA.>?? 0=' <0' #0 +E' 1'' D>? =0' 10' <%%' +?' B1,>B>0+?'
@ ?' <++<C@B>0+' J<?' BA#+<$%>' +1' @>.' ?>K!' <?' J>%%'
<?!' C@<.<C+>. ' @>' ?EBA<+@E' <0D' +>0D>.' C<.>' J +@'
J@ C@' ?@>' .>=<.D>D' @>.' A>1A%>!' 0<+#.<%%E' .< ?>D' <'
.>C A.1C<%' ?>0+ B>0+' 0' +@> .' $1?1B?' #+' J@>0' +@>E'
$>@>%D' @>.' D .>C+ 0=' +@> .' C1#0?>%?!' ?@<. 0=' +@> .'
'<+ =#>?' <0D' D<0=>.?!' <0D' D ?A%<E 0=' <%%' +@>' C1BA.>P
@>0? ,>' 0+>%%>C+#<%' A1J>.?' 1'' +@>' 1+@>.' ?>K!' +@>E'
%11H>D' #A' +1' @>.' <?' +1' ?1B>' ?#A>. 1.' $> 0=!' J +@'
'>>% 0=?' '<.' B1.>' K<%+>D' +@<0' +@1?>' 1'' B>.>' %1E<%+E

@>C@ ,<%.1#?@><.+1''+@> A<0 <.D D @1B<=>+1 @>.! <? +1 @ ? +#+>%<.?< 0+L <0D ?@> @>%D <'C10+.1% 1,>. @>. A>1A%>! ?#C@ <? 01 B<0 C1#%D @<,> <CP F# .>D 0 <0E <=>!O <0D A.1$<$%E 01 J1B<0! 0 <0 <=> <0D C1#0+.E %>??.1B<0+C

5>+>. <.+E.! ?1 1'+>0 F#1+>D 0 +@> A.>?>0# C@<A+>.! <0D J@1 J %% C10?+ +#+> 10> 1 1#.'$>?# <#+@1.+>? D#.0= +@> .>B<0D>.' 1 +@> @?+1.E! J<? <0<+ ,> 1 .10<! -01 1 0=@>..<! <?C1BB10%E ?#AA1?>D!# < A%<C> ?+#<+>D 10 +@>$1.D>.? 1 <H> <==1.>! 0 +<%E - <GG#C@>%% ! C.++1.'D%+<% <! .>?C<! 98 O ! +1B ' ,' 0=@>.<* > J<? 1 01$%> %<O>?> >K+.<C+10' 0 699! <+J>0+E%+J1'E><.? 1 <=>! @> J<? ?>0# +1 C1BA%>+> @ ? >D#C<+10 <+ 1B>! J@>.> @> C10+0#>D +>0 E><.?! <0D '1.B>D <0 0+B<CE J +@ +@> B1?# D ?+0=# ?@>D %+>.<.E C@<.<C+>.? 1 +@<+ C#%+ ,<+>D C<A+<%' 0 649! @> J<? A>.?#<D>D $E +@> <?+%<0 <B$<??<D1.! +@> 1#0# D> >0D %<! +1 <CC1BA<0E @ B +1 A<0! J@>.> @> J<? .><> ,>D J +@ B<.H>D D ?+0C+10 $E +@> F#>>0! J@1 J1#%D @<,> <+ 10C> >0=<=>D @ B 0 +@> +#+10 1 +@> E1#0= 01$%+E 1 +@> C1#.+ $#+! <.+E.'@<, 0= >KA.>??>D <A.>'>.>0C> 1 < B%+<.E%'>! ?@>! J +@ @>.'#?#'D D>% C<CE! D>C%0>D +1 A.>?? @ B 10 +@> A1 0+' > J<? A.>?>0+! <? J> @<,> ?>>0! <+ +@> ?>=> 1 <G<! <0D C10+0#>D J +@ +@> <.BE D#.0= +@> ?#$?>F#>0# C<BA<=0? 1 +@> 11.?@ J<.' <0E A<??<=>? 1 @?C1..>?A10D>0C>! <+ +@?A>.1D! ?@1J <J@B?C<% B K+#.> 1 ?>%'%C1BA%<C>0CE J +@ <C10?C1#?0>?? 1 +@> %#DC.1#? '=#.> J@C@ @> B<D> 0 Q >KC@<0=0= +@> #?>? '1.' <.?R

+ +@> C%1?> 1 +@> J<.' @> >0+>.>D +@> >CC%>? <?+C<% A.1'>?? 10! '1.' J@C@ @> @<D $>>0 1.=0<%E D>?+0>D! <0D J<? A>.?#<D>D +1 .>?#B> @?%+>.<.E ,1C<+10' > 1A>0>D @?? ?C@11% <+ <%<D1% D! <.<=1??<! <.C>%10<! %C<%< D> >0<.>?! <0D 1+@>.' A%<C>?L <0D + J<? +@.10=>D J +@ +@> A.0C A<% E1#0= 01$%+E '.1B <%% A<.+? 1'

3%,)'BA'%'A'4 % ',)')' 0'A,' '5 B' A ,' , %C') $, A1)'0 1'A,1!' 8' $F)1'1 %' , %,%'$4 %'% a' 3,)(,3'0 ' 1) ![' 8,',13 %)' .,('B '0$ C' ,; 1% 5'4C' A'2$)'%)5'%0 'A'5 %A'4C' 5,)%)5'%)5'*A% ' E<%)5'A'B%' (13) 5'4C' A,'A' ((,% ,(%'3 0 1)'%' B '%',(,.,'5,'),, ! 8'5, 5'%4 $' A'C %' 6 6'%' A'%' ' 0' .) C<%)5'A,' 1%,)'B ',) 5'4) %A'%'1)$1)',)' A'(%A 5 %'(A$ (A' 0': %)%5%' 0'BA,(A'A'B%'3, !

1)'' % C K' 3,)(,3%'B @',' %' %, ' ' '%,)' %4C),(%'4,)'' %)'%(($)' 0'%'.,,' ' A' $ %)' 0' 'C3',)' 6 '0'A'313 ' 0'5 3 (%,)'' A' %,%,)'B, A' BA,(A'A' A%5' 1)%(5' A'*A, ,%)' ,5) ',)' % ,) '0'A',)+$, ' ,)0,(5')' A' 3%), A' 1 ! % C' ( )5$(5' A,') ' ; ,%,)' B, A' $(A'%55 ' A%'A') ') C' %33 % 5' A' $; %)K') 1)'4$' 4%,) 5' . %',13 %)',11$1, '0'A,' *A, ,%)' $4+ (',)'%55, ,)' ' A '3 ., $ C')+ C 5! 4C' A 1!

8'% 'B '%)'%(($)' 0' A'5, (. , ' 0' A' B' 9 5'), 5' Z' ' 4$' (%),(,' ' . ' 4 ['%B @'%' C' ( ); $ 5'%)5'(11)5 5'4C' $4 2$)'A, ,%) ! $' A'B @' 0' 3,3(,3%'.%$',)' $' %(A ',' A,' 3$' 3, %$1'4,)''%' ((,)' 0' A,' 1$,0%, $' (3)5)('B, A' A'1 '( ); ,5 %4'3)' 0' A,' ,1 'BA A',)' 3 , ,(%' ', %C' ,0 ! A' '%' ',)' %,)'%)5' F)5'0 1' A'C %' DII' ' A' ,1 ' 0' A,' 5 % A!' T A $'A') ' ( ) 3,($ $'0 ' '%)(' 0'5,(; ,)' A C'% '1 '.% $%4 ' ' A'A, ,%)'0 1' A'0,5 ,C'%)5' ') %'%((($ %(C' 0' A'5 %, '%'B '%'0'A',) ,')'(, ,; (, 1' ,)' BA,(A' A C'%4 $)5<0 '%'BA,(A'$)(11)'0%(, , , 'B '%00 5 5'4C' A'B , K',) ,1%(C' B, A' A' %5,)''%('%)5' A'1 ' ( )5, ' $(' 0',)0 1%,)'30' A'3 , 5!

A,'A,'A'(A%%(','0$ C'%$ A ,G 5'4C' A'+$5'1)' 0' A ' 2$%,0, 5' '3) $)(')' A ,'1 , J % C K' B)'( ); 13 %, ! 1)'' A ! ! :%,)5 G'5'*% 4%+% '%'(,1 ' 0' '',)'' 5,)%)5'%)5'( ) %) C' 13 C 5',)' A'A,'A '( ); ( )' 0' % '(11)5' A ' 3, '%'Y' A'B @' 0'%' %) 5' %)5'$3 ,'A'1%)'B '(%($% 5' 'A B' ,'A')' A' %) %(,)' 0' A'3 , 5![' P)% ' ! 3 ' !X' .%' : 1 G'%) A'( ); 13 %C'BA' $.,. 5' % C',)' A' ,0' 0'=,1)' BA,(A'A

((ʻ A ʻ .% , $ ʻ ,)%(($ %(, ʻ BA,(Aʻ A%. ʻ (3ʻ ,) ʻ , ʻ BA A ʻ A $'Aʻ A ʻ(%) ʻ 0ʻ A ʻ%$ A ʻ ʻ 0ʻA, ʻ 5, ! ʻ A%. ʻ 4)ʻ 5ʻ ,) ʻ A, ʻ)' Aʻ 0ʻ 1% @ʻ 4Cʻ 1 ʻ ,($ ʻ BA,(Aʻ 1 ʻ 1Cʻ C ʻ ,)ʻ A ʻ ( )ʻB @ʻ 0ʻ !ʻ 8% %1< BA ʻ ,) ,; 1% ʻA, ʻ 4 , 0ʻ A% ʻ A ʻ 3, ʻ 0ʻ % C ʻ ,) %5ʻ 0ʻ4 ,) "ʻB ,)ʻ % ʻ A , ʻ 3 (,. ʻ5% ʻB ʻ3 5$(5ʻ4CʻA,1ʻ%Lʻ 1 ʻ % ʻ3 , 5!ʻ P) 5$(,)ʻ ʻ A ʻ , % $ ʻ 0ʻ $ 3 ʻ . !ʻ,!ʻ33!ʻ D H J DD !X ʻ ( )($,)ʻ BA,(Aʻ ʻ $ 3 (ʻ A, ʻ %($ ʻ %)5ʻ (%)5,5ʻ (, ,(ʻ B $ 5ʻ A%. ʻ 4)ʻ Bʻ ʻ %5 3 ʻ A%5ʻ A ʻ 3 $ 5ʻ A ʻ (3)5)(ʻ ,)ʻ ( )) F,)ʻ B, Aʻ A ʻA, Cʻ 0ʻ A ʻ ,1 ʻ ʻB ,'A 5ʻ A ʻ$)2$% ,0, 5ʻ ,1)Cʻ 4) ʻ4Cʻ ( ) 13 % ,0 ʻ ʻ , ʻ 1 ,)$ ʻ%(($ %(C!

8:

5 ‘ ;

9 ‘ ‘ : !‘ J ‘ : !‘ ‘ ‘ 8 ‘

* ‘ ‘ : !

6: O 6:7

‘ +@>‘ ?A. 0=‘ 1’‘ 6: !‘ <B$<??<D1.?‘ <.. ,>D‘ '.1B‘ ?$10‘ '1.‘ +@>‘ A#.A1?>‘ 1’‘ C<..E 0=‘ 0+1‘ >''>C+‘ +@>‘ +.><+E‘ 1’‘ B<.. <=>‘ J@ C@‘ @<D‘ $>>0‘ <..<0=>D‘ $>P +J>>0‘ %10?1!‘ @> .‘ 1’‘+@>‘ 51.+#=#>?>‘ B10<.C@E!‘ <0D‘ ?<$>%%<!‘ 0'<0+<‘ 1’‘ <?+ %>‘ 0‘ <%% <0C>‘ J +@‘ +@ ?‘ H 0=D1B!‘ J@ C@‘ '.1B‘ +?‘ C10+ =# +E‘ A1??>??>D‘ ?#C@‘ .><DE‘ B><0?‘ 1’‘<001E<0C>‘ +1‘ <?+ %>!‘ <0D‘ J@ C@‘ @<D‘ ?@1J0‘ ?#C@‘ J %% 0=0>??‘ +1‘ >BA%1E‘ +@>B‘ 0‘ >0'1.C 0=‘ +@>‘ A.>+>0? 10?‘ 1’‘ /1<00<‘ >%+.<0>"<!‘ J<?‘ <0‘ 1$">C+‘ 1’‘ BA1.+<0C>‘ +1‘ >.D 0<0D‘ <0D‘ ?<$>%%<‘ 1‘ 0P '>. 1.‘C10? D>.<+ 10‘ C1#%D‘ @<,>‘ .>C10C %>D‘ +@>‘ F#>>0‘ +1‘ <‘ ?>A<.<+ 10‘ '.1B‘Ú+@ ?‘ $>%1,>D‘ D<#=@+>.!!‘ @>.‘ >%D>?+‘ C@ %D!‘ J@1?>‘ =>0+%>‘ <0D‘ #0C1B B10%E‘ <B <$%>‘ D ?A1? + 10‘ ?>>B?‘ +1‘ @<,>‘ >0D><.>D‘ @>.‘ $>E10D‘ +@> .‘ 1+@>.‘ C@ %D.>0‘ +1‘ @>.‘ A<.>0+?

@>‘ C>.>B10E‘ 1’‘ +@>‘ <'' <0C 0=‘ +11H‘ A%<C>‘ <+‘ >, %%>‘ 0‘ +@>‘ B10+@‘ 1’‘ A. %!‘ 10‘ >.0<0D1‘ D>‘ %,>E.<‘<AA><. 0=‘<?‘+@>‘.>A.>?>0+<+ ,>‘1’‘+@>‘5. 0C>

<?+>.' 1'' +'/<B>?!' <0D' <' 0#B>.1#?' <0D' !.<<=0 M' 'C>0+' .>+ 0#>' >.' D1J.E' >KC>>D>D' +@<+' @?#<%%E' <?? =0>D' +1' +@>' 0'<0+<?' 1'' <?+ %>!' $E' ',>' @#0D.>D' B<.H?' 1'' =1%D' <0D' <' +@1#?<0D' 1'' ? %,>.L' <0D' @>.' J<.D.1$>' J<?' >?+ B<+>D' <+' 7 ! ' =1%D' '%1. 0?' @>' C10+>BA1.<.E' C@.10 C%>.?' DJ>%%' J +@' B#C@' C1BA%<C>0CE' 10' +@>?>' >, D>0C>?' 1'' +@>' ?+<+>% 0>??' <0D' ?A%>0D1#.' 1'' +@>' <?+ % <0' C1#.+' 0'1.+#P 0<+>%E!' +@>?>' '< .' <#?A C>?' J>.>' D>?+ 0>D' +1' $>' C%1#DP >D' +11' ?110' $E' +@>' D><+@' 1'' +@>' A. 0C>!' @>.' @#?P $<0D T

1'?110>.' @<D' +@>'C<BA< =0' 1''+@>'A.>C>D 0='E><.' $>>0' $.1#=@+' +1' <' C%1?>!' +@<0' >.D 0<0D' <0D' ?<$>%%<' ?>0+' <0' >B$<??E' +1' +@>' S 0='1'' .<0<D<!' .>F# . 0=' <' ?#..>0D>.' 1'' @ ?' C<A +<%!' C10'1.B<$%E' +1' @ ?' ?+ A#%<P + 10?' <+' 1"<!' J@ C@' =#<.<0+>>D' +@ ?!' 10' +@>' C<A +#P %<+ 10' 1'' <G<!' %B>. <!'<0D' #<D K' @<+'+ B>'@<D' 01J'<.. ,>D'S 0='$D<%%<@!'@1J>,>.!'>KC#?>D'@ BP ?>%'' '.1B' 1$>E 0='+@>' ?#B B10?' 1''+@>' A<0 ?@' ?1P ,>.> =0?!' .>A%E 0='+@<+' @>' J<?' 01' %10=>.' @ ?' 1J0' B<?+>.!'<0D'+@<+!'<%+@1#=@' @>'@<D'<%%'+@>' 0C% 0<+ 10' +1' H>>A' @ ?' >0=<=>B>0+?!' @>' J<?' A.>,>0+>D' $E'+@>' 0@<$ +<0+?' 1''+@>'C +E!'01J'?J1%%>0' B#C@' $>E10D' +?' 0<+#.<%' A1A#%<+ 10!' J@1'.>?1%#+>%E' 0? ?+>D' 10' +?' D>M' '>0C> '

%,'C' $%' $ 3!' >' %4 ' 1!',,!' (%3!' F,! J >' $' %' 1!',,!' 33!' D6 J D6 ! J')%5 G!' 8, '5' ' C ' !' G' C)% M*% ,(% '3!IID6!' (%3!' F(! J $ '% '*),(%' (%3!' (FF,F! J' ,A ' A ' %4,(') '*% ,; .,5 '#$,)($%')% ' ! % !' ,%)'%$ A ,, ',13 %(A' A '+$; '2$,)(!' '5,%!' ! ,(' 0' A ' $11)' 1%5' 4C' '*)5 ' 1,)%*!' 5 ' 'S A ' 3%), A' . ,') !' ' 5 ' E ! !

+ ? 01+ A.1$<$%> +@<+ +@> 11. ?@ H 0= D D <0E =.><+ , 1%>0C> +1 @ ? '>>% 0=?! 0 +@ ? >,<? 10 1 ' < A.1B ?> >K+1.+>D '.1B @ B 0 C<A+ , +E <+ %><?+! + J1#%D ?>>B ?1! '.1B +@> @1?+ %> B1,>B>0+? J@ C@ B B>D <+>%E ?#CC>>D>D @> A>1A%> 1 ' .<0<D< .>P ?#B>D <%% <+ 10C> +@> . <0C >0+ <C+ , +E! 'F.<E 0= 0+1 +@> @. ?+ <0 +>.. +1. >?! ?#.A. ? 0= %@>0D 0 <0D ?1B > 1+@>. A%<C>? 1 '%>?? BA1.+<0C>! <0D ?+ .. 0= #A +@> ?A . + 1 ' .>,1%+ 0 #<D K <0D 1+@>. C10F#>.>D C + >? .<0<D<! J@ C@ @<D ?%>A+ +@.1#=@ +@> @><+ 1 '+@> ?+.#==%>! ?>>B>D +1 .>, ,> <+ +@> ,>.E B1B>0+ J@>0 >K>.+ 10 $>C<B > @1A>%>??

>.D 0<0D J<? 01+ ?%1J 0 .>+<% <+ 0= +@>?> <C+? 1 ' <==.>?? 10 0 +@> ?A. 0= 1 ' 6: ! @> B<.C@>D J +@ + ?+.10= '1.C> 0+1 +@> C#%+ ,<+>D A%< 0 1 ' .<0<D<! ?J>>A 0= 1 ''! <? #?#<%! +@> C.1A? <0D C<++%>! <0D .1%%P 0= +@> + D> 1 ' D>,<?+<+ 10 #A +1 +@> ,>.E J<%%? 1 '+@> C +E 0 +@ ? C<BA< =0 @> C10'>..>D +@> @101#. 1 ' H0 =@+@11D 10 @ ? ?10 5. 0C> /1@0! +@>0 10%E +J>%,> E><.? 1 ' <=>! J@1B @> @<D $.1#=@+ J +@ @ B! <'+>. +@> <0C >0+ #?<=> 1 ' +@> <?+ % <0 01$%>?! 1 ' +.< 0M 0= #A +@> . C@ %D.>0 '.1B ,>.E +>0D>. E><.? 0 +@> 11. ?@ J<.? @> C>.>B10E J<? A>.'1.B>D 10! +@> $<0H? 1 ' +@> =.<0D C<0<% #0D>. +@> $<++%>B>0+? <%B1?+ 1 ' +@> $>%><=#>.>D C +E @> #H>?! 1 ' <D G <0D >D 0< D10 < J>.> 5. 0C> /1@0 ? ?A10M

) A B . 0,)5 %)C A 0 : $%5,F 3 .,5 5 A % 0 $)5%,) 0 A 4 ,'%,) ,1; A $ 5 4 ( )2$ 5 B, A,) ,F 3$ 5 45% %A ,) A 1 A%) 1) A ! J $ '% *),(% 3! A% 1)% (AK%' 1) 5$,) ' /6! J :%,4%C * 13)5! 8, A, (%3 ,., C % +% ,) DI 5 3%)% 1 ,.! 3! D I! $)5 A, (%3, % ,) F(A%) '

?1.?!‘ <0D!‘ <'+>.‘ +@>‘ C1BA%>+ 10‘ 1'‘+@>‘ C>.>B10E!‘ +@>‘ 0>J‘ H0 =@+‘C10'>..>D‘+@>‘ @101#.?‘1'‘C@ ,<%.E‘ 0‘ % H>‘ B<00>.‘ 10‘ ?>,>.<%‘1'‘@ ?‘E1#0=‘C1BA<0 10?‘ 0‘<.B?T‘ 0‘ +@>‘ '1%%1J 0=‘ <#+#B0!‘ >.D 0<0D‘ .>A><+>D‘ @ ?‘ .<,<=>?‘ 0‘+@>‘ ,>=<!‘ <0D‘<+‘+@>‘ ?<B>‘+ B>‘<AA><. 0=‘ $>'1.>‘ +@>UD ?<''>C+>D‘ C +E‘1'‘ #<D K!‘ J +@‘ <‘ '1.C>‘ %<.=>‘>01#=@‘+1‘<J>‘ +‘ 0+1‘?#$B ?? 10!‘ A.1A1?>D‘ <0‘ BB>D <+>‘ 0,>?+ =<+ 10‘1'‘+@>‘C10?A .<CE‘ >‘ A.1P B ?>D‘+1‘ 0'% C+‘?#BB<.E‘"#?+ C>‘10‘<%% J@1‘@<D‘$>>0‘ 0‘ <0E‘D>=.>>‘C10C>.0>D‘ 0‘ +L‘ <+‘+@>‘ ?<B>‘+ B>‘ 1''>. 0=‘A>.B ?? 10‘+1‘+@>‘ 0@<$ +<0+?!‘ 0‘+@>‘<$#0DP <0C>‘1'‘@ ?‘C%>B>0CE!‘ +1‘D>A<.+‘J +@‘<%% +@> .‘A>.P ?10<%‘ >''>C+?‘ J@>.>,>.‘ +@>E‘ J1#%D!‘ A.1, D>D‘ +@>E‘ ?@1#%D‘A.>'>.‘+@ ?‘+1‘<'"#D C <%‘ 0,>?+ =<+ 10‘1'‘+@> .‘ C10D#C+‘ @ ?‘A1% + C‘A.1''>.‘@<D‘ +?‘>''>C+‘ @>.>‘ J>.>‘ '>J!‘ '‘<0E‘1'‘+@>‘ C + G>0?!‘ J@1‘@<D‘01+‘$>>0‘ > +@>.‘D .>C+%E‘C10C>.0>D‘ 0‘+@>‘C10?A .<CE!‘1.‘A. ,E‘ +1‘ +‘ +@‘ 10>‘ <CC1.D!‘ +@>.>'1.>!‘ +@>E‘A.>'>..>D‘ >K %>‘+1‘+.#?+ 0=‘+1‘+@>‘+>0D>.‘B>.C >?‘1'‘+@> .‘'"#D=>?‘ 0‘+@ ?‘ J<E!‘ ?<E?‘+@>‘ C#.<+>‘ 1'‘ 1?‘ 5<%<C 1?!‘ $E‘+@>‘ BE?+>.E‘1'‘1#.‘ 1.D!‘ J<?‘+@>‘<0C >0+‘C +E‘1'‘ #<D K‘ $.1#=@+‘<=< 0‘J +@ 0‘+@>‘ @. ?+ <0‘ '1%DL‘+@>‘B1?F#>?‘ C10,>.+>D‘ 0+1‘ @. ?+ <0‘+>BA%>?!‘ ' %%>D‘J +@‘+@>‘@<.P B10 >?‘1'‘C<+@1%C‘J1.?@ AL‘ <0D‘+@>‘A%><?<0+‘A%<C>?!‘ J@C@‘ '1.‘0><.%E‘> =@+‘C>0+#. >?‘@<D‘$>>0‘+.<BA%>D‘ #0D>.‘+@>‘ '11+‘1'‘+@>‘ 0' D>%!‘J>.>‘10C>‘B1.>‘.>?+1.>D‘ +1‘+@>‘ '1%%1J>.?‘1'‘+@>‘ .1??

Q‘ !‘ !‘ ,($ ‘ * % ‘ 1 >‘)5 ‘5‘ %')‘ 1!‘,.!‘(%3‘ %4, ‘0 !‘ / <J $ '% ‘ *)!‘ FFF. J *% 5)) 8, !‘5K 0)2 5‘ ‘ C ‘(%3!(FFF! J N$, %‘ ‘5K 3%') ‘ 1!‘,,,‘3‘ H!

' ? B %<.' A1% CE' A.1D#C>D' ? B %<.' .>?#%+?' 0' +@>' C + >?' 1'' %B >. <' <0D' <G<!' J@1?>' 0@<$ +<0+?!' >,<C#P <+ 0=' +@> .' <0C >0+' @1B>?!' +.<0?A1.+>D' +@>B?>%,>?' J +@' ?#C@' A>.?10<%' >' >C+?' <?' +@>E' C1#%D' C<..E!' +1' +@>' C +E' 1'' .<0<D<!' 1.' +@>' C1<?+' 1'' '. C<' @>' ?A<C>' +@#?' 1A>0>D' $E' +@>' '#= + ,>' A1A#%<+ 10' J<?' F# CH%E' ' %%>D' $E' +@>' .#?@ 0=' + D>' 1'' A<0 <.D? T

+' ?' BA1?? $%>!' <+' +@ ?' D<E!' +1' C10+>BA%<+>' +@>?>' >,>0+?' J +@' +@>' +. #BA@<0+' ?J>%%' 1'' >K#%+<+ 10' 0' J@ C@' +@>E'<.>' .>C1.D>D' $E' C10+>BA1.<.E' C@.10 C%>.?' @<+' +@>' 11.?' J>.>' =# %+E' -+@1#=@' 01+' ?1' =>0>.<%%E' <?' A.>+>0D>D*' 1''+@>' <%%>=>D' C10?A .<CE!' ?' 01+' 0' +?>%'' BA.1$<$%>!' <0D' ?' C1..1$1.<+>D' 0D>>D' $E'+@>' .<$ C' ?+<+>B>0+?' ' $#+' +@>' A#0 ?@B>0+' J<?' <%+1=>+@>.' D ?P A.1A1.+ 10<+>' +1' +@>' 1''>0C>' /#?+ C>' B =@+' ?#.>%E' @<,>' $>>0' ?<+ ?' >D' $E' <' ?>%>C+ 10' 1''+@>' <#+@1.?' <0D' A. 0C A<%' <=>0+?' 1'' +@>' B>D +<+>D' 0?#..>C+ 10&L' '1.' 01' 1,>.+' <C+' <AA><.?' +1' @<,>' 1CC#..>D' #+' <,<. C>' J<?' +11' ?+.10=' '1.''#?+ C>L' <0D' +@ ?' <C+!' J@ C@' ?' 0' A>.'>C+' C10'1.B +E' J +@' +@>' A1% CE' ?E?+>B<+ C<%%E' A#.P ?#>D' $E' +@>' A<0 ?@' C.1J0' '1.' B1.>' +@<0' <' C>0+#.E' <'+>.J<.D?!' B<E' $>' C10? D>.>D' <?' 10>' 1''+@>' '.?+' % 0H?' 0' +@>' %10=' C@< 0' 1'' A>.?>C#+ 10' J@ C@' +>.B 0<+>D' 0' +@>' >KA#%? 10' 1''+@>' 1. ?C1>?

#. 0=' +@>' '1%%1J 0=' E' <.!' 6: !' <' C .C#B?+<0C>' 1CC#..>D' %%#?+.<+ ,>' 1'' +@>'UA1% CE' 1'' +@>' A.>?>0+

L' $ '% ' * 5),(%'(%3!'(FFF,!' 3!' FFF,.! J :% ,4%C' * 13)5!' (FFF,,! J 1% 5 G' 8, '5' ' 1!' ,.!' 3!' D D!' J' *% 5)) ' C ' !' (%3!' F(.,,! J' *)5 ' 8, !' 5K 0, $' ' 5K 3%') ')' 5 ' ' %4')' 3%)%' 1!' ,,,!' 33!' I H' !' 1!' ,,,!' (%3!' F ,! J !' % C

=1,>.0B>0+ 0 .>'>.>0C> +1 >CC%>? <?+ C<% B<++>.?
@> C@<0C>.E 1'' <%%<D1% D @<, 0=' <AA><%>D +1 +@>
A1A> 0 <' C<?>' C1B 0=' J +@ 0 +?' 1J0 >KC%#? ,>'"#. ?P
D C+ 10!' +@>' F#>>0 C1B B<0D>D %10?1' D>' <%D , >?1!'
?@1A 1'' >10!' +@>' A.>? D>0+ 1''+@>' C1#.+! +1=>+@>.'
J +@ <%% +@>' <#D +1.?!' +1 $>' .>B1,>D '.1B +@> .' .>P
?A>C+ ,>' 1'' C>?!' J@ C@ ?@>' D>% ,>.>D +1 < 0>J $1<.D!'
@<, 0=' +@>' ?@1A 1'' , >D1 <+ +?' @><D @ ?' ?'
10>' <B10=' B<0E >K<BA%>?' 1'' +@>' C10?+<0CE J +@
J@ C@ ?<$>%%<!' 01+J +@?+<0D 0=' @>.' .>,>.>0C>' '1.'
.>% = 10 <0D .>?A>C+' '1.' +?' B 0 ?+>.?!' .>'#?>D +1 C1BP
A.1B ?>' +@>' 0<+ 10<% 0D>A>0D>0C>' $E .>C1=0 ? 0=' 0
<0E D>=.>>' +@>' #?#.A<+ 10?' 1'' 1B>' .1B +@ ?'
D =0 ' >D <++ +#D>!' ?1 1'+>0 <$<0D10>D $E @>.' ?#CC>?P
?1.?!' ?@>' 0>,>.' ?J>.,>D '1.' < B1B>0+ D#. 0=' +@>'
C1#.?>' 1''@>.' %10=' .> =0 T

@>' J 0+>.'1'' DH ' J<?' $#? %E 1CC#A >D J +@ A.>P
A<.<+ 10?' '$.' +@>' C%1? 0=' C<BA< =0 <=< 0?+ .<0<D<'
>.D 0<0D +11H C1B B<0D 1''+@>' <.BE 0 +@>' B10+@
1'' A. % 6: ! J +@ +@>' A#.A1?>' 1'' ? ++ 0=' D1J0
$>'1.>' +@>' 11. ?@ C<A +<%! 01+ +1 . ?>' #0+ % +?' ' 0<%
?#..>0D.' @>' +.11A? J@ C@ B#?+>.>D 0 +@>' <%
D>' >% %%1?' <.>' C1BA#+>D $E B1?+ @ ?+1. <0?' <+ 8 ! '
@1.?>' <0D '11+! <%+@1#=@ <.+E.! J@1' ?>.,>D <?' <
,1%#0+>>.! ?J>%%?' +@>' 0# 0$>.' +1 4 ! @>E J>.>
D.<J0 '.1B +@>' D ''>.>0+ C + >?! C@ >'%E! <?' #?#<%!
'.1B 0D<%#? <! J@ C@ @<D $>>0 ?+ B#%<+>D +1 +.#%E
= =<0+ C >''1.+?' +@.1#=@1#+ +@ ?' A.1+.<C+>D J<.!'' <0D

L : % ,)5 G 5 ' *% 4%+% ')> 0 ((5,)'' ' A
% ' ! %) ' H ! 2$ %' 0$), A 5 4C ., ' A,

?1#.C>?! .<0<D< J<?' ?+ %%' '1.B D<$%>' '.1B' +?' %1C<%' A1?+10' <0D' +?' D>'>0C>?' 0' +@>' ><?+' +' J<?' '>0C>D' 0' $E' <' J %D' B1#0+< 0' $<..>.!' +@>' ' +' J@1?>' ?01JMC%<D' ?#BB +?' D ''#?>D' <' =.<+>'#%' C11%0>??' 1,>.' +@>' C +E' +@.1#=@' +@>' ?#%+.E' @><+?' 1'' ?#BB>.' @>'?D>'+1J<.D?' +@>',>=<!' '<C 0=' +@>' @.?+ <0' >0P C<BAB>0+!' J<?' >0C .C%>D' $E' J<%%?' <0D' +1J>.?' 1'' B<?? ,>' ?+.>0=+@' <0D' ?1% D +E' @>' A1A#%<+ 10!' ?J>%%>D' +1' 7 ! ' $E' +@>' BB =.<+ 10' '.1B' +@>' ?#..1#0D 0=' C1#0+.E!' J<?' % H>%E!' 0D>>D!' +1' $>' <' $#.P D>0' 0' <' A.1+.<C+>D' ?>=>' L' $#+' <B10=' +@>B' J>.>' 7 ! !' +@>' '%1J>.' 1'' +@>' 1?%>B' C@ ,<%.E!' J@ C@' @<D' >?C<A>D' +@>' >D=>' 1'' +@>' @.?+ <0' ?J1.D' 0' '.10+' 1'' +@>'C +E!' '1.' <0' >K+>0+' 1'' 0><.%E' +>0' %><=#>?!' %<E' #0.1%%>D' +@>' B<=0 ' C>0+',>=<!

Z' (%C' '%%5%.'%
$(' (%(,)'5'5%1%'
'5'A 14 ' ',%,11)%

J@1?>'A.1%'C' $><#+>?' C1#%D' ?C<.C>%E' $>' >K<==>.<+>D' 0' +@>' B1?+' '%1.D' ?+.<0?' 1'' +@>' .<$<0' B0?+.>%!' <0D' J@C@' ?+ %%' $%11B>D' %#K#.<0+!' 01+J +@?+<0D 0=' +@>'.>A><+>D' .<,<=>?' 1'' +@>' A.>C>D 0=' ?><?10

L' *)5' 1!',,,!' (%3!' F,,!' B 5![*%,,' A%' ((T%' J 1%5G' 8,' 5' % C' 4 5C' 0',) ,)'' 3% ,($%' !' C' %4!' !' (%3!' (!>T !' 3(,)'' A' B % A' 3 3$%; % C,' 3!' 3,!',4!',,!' 3!!' ,)' %)5' (,%' A%4,' 0' :%; FFF,F!' J %1 4 '5' ')%5%' 0 1' .%,$' %4,(' %$; ,(' ,4!',!' (!F.,,,!J !' %>' A,,!' P,4,A (%' ($,%>' ,)' ,($' 0!' //!) ,' 1!',,!33!' D/J !X % C' 1%@' A%' A' :; A')(A' B @' 0' %>') ' 1 (A%)' Y.C%' ' 2$<0!' 4 5' PE C%' ' , 4 5' D' .!' %,' I /' ' $,.!X . C' (,1' 5(%' A,' 4' %)5' A')',A')' 0' $3AC A' %' ' 0 ,0, 5' (,C',)' A

@>' 0@<$ +<0+?' 1'' .<0<D<' J>.>' ' %%>D' J +@' 0P D =0<+ 10' <+' +@>' ? =@+' 1''+@> .' >0>B E' +@#?' >0C<B A>D' #0D>.' +@>' ?@<D1J!' <?' +' J>.>!' 1'' +@> .' $<++%>B>0+?' / >E' ?<%% >D' '1.+@' 0' ?B<%%' $1D >?!' 1.' ? 0=%E!' C@<%P %>0= 0=' +@>' A<0 <.D?' +1' >F#<%' >0C1#0+>.' #B>.1#?' J>.>' +@>' C1B$<+?' J@ C@' +11H' A%<C>' $>+J>>0' +@>' @ =@MB>++%>D' C<,<% >.?' 10' $1+@' ? D>?!' J@1' B>+' 10' +@>' %>,>%' <.>0<!' <?' 10' <' + %+ 0=' =.1#0D!' J@>.>' +@>E' B =@+' D ?A%<E' +@> .' A.1J>??' 0' +@>' A.>?>0C>' 1'' +@>' <??>BP $%>D' $><#+E' <0D' C@ ,<%.E' 1''+@> .' .>?A>C+ ,>' 0<+ 10?L' '1.' +@>' A<0 ?@' C<BA' J<?' =.<C>D!' <?' #?#<%!' $E' +@>' A.>?>0C>' 1'' I #>>0' ?<$>%%<' <0D' +@>' 0'<0+<?!' J +@' +@>' C1#.+%E' +.< 0' 1'' %<D >?' J@1' @<D' <CC1BA<0 >D' +@> .' .1E<%' B ?+.>??' '.1B' %C<%<' %<' ><%' @>' A<P 0 ?@' $<%%<D?' =%1J' J +@' +@>' A C+#.>?F#>' D>+< %?' 1'' +@>?>' H0 =@+%E' +1#.0>E?!' '1.B 0=' +@>' B1?+' <++.<C+ ,>' A1.+ 10' 1'' +@ ?' .1B<0+ C' B 0?+.>%?E!' J@ C@!' C>%>P $.<+ 0=' +@>' A.1J>??' 1'' 1?%>B' <?' J>%%' <?' @. ?+ <0' J<.. 1.?!' ?@>D?' <' DE 0=' =%1.E' .1#0D' +@>' %<?+' @1#.?' 1'' .<0<D< T

P)' %.,)' ' 0' %4,%)') ,; 2$, , ' 0' 3%,)'< 0 !)5)' I X' 5 ' %13 '+$,(',)' A ,' 0 $ A 5' 5 ,')' ' A ' ') %' 3 ' %3AC' %)5' % (A, ($ %' 1%'),0,( )(' 0' : %)%5%!

C' 0 10>' 1CC<?10' < @. ?P + <0' H0 =@+' @<, 0=' D?C1B' +>D' J +@' <' @<0D'#%' 1'' B>0' < B#C@ ?#A>.1.' $1DE' 1'' 1?%>B' C@P ,<%.E!' S 0=' $D<%%<@' +>?+ ' '>D' @?' <DB .<+ 10' 1''@?'A.1J>??'$E' ?>0D 0=' @ B' 10' +@>' '1%%1J 0=' D<E' < B<=0 ' C>0+' A.>?>0+!' +1P =>+@>.' J +@' @?' 1J0' B 5' ?#P

A>.$%E' B1#0+>D' - >B' D>' %< <%' C<D!' D>' ?+' +1B' , 'A' / I!X

@>' 11.?@' $<%%<D!' $>=0P 0 0=

Q' ' >E' @C1' D>' .<0<D<!R

D>?C.$>?' +@>' A<0 C' 1CC<?10>D' 0' +@>' C +E' $E' +@>' @.?+ <0' >0P C<BAB>0+' 10' +@>' ;>0 %

' 1.'>?>' '.>?C1' >0 ' B'C<BA1' , >0>' B<.C@<0D1!' +1D1' D>' %#C D<' =C0+>!' %<?' <.B<?' ,<0' .>%#B$.<0D1L

Q' <?

@>ʻ '>?+ , +E!ʻ J@ C@ʻ .> =0>Dʻ +@.1#=@1#+ʻ +@>ʻ C<BAʻ 10ʻ +@>ʻ <.. ,<% 1'ʻ ?<$>%%<!ʻ D Dʻ 01+ʻ D ,>.+ʻ @>.ʻ <++>0P + 10ʻ '.1Bʻ +@>ʻ ?+>.0ʻ $#? 0>??ʻ 1'ʻ J<.ʻ @>ʻ ?#A>. 0P +>0D>Dʻ +@>ʻ B % +<.Eʻ A.>A<.<+ 10?!ʻ <0Dʻ A>.?10<%%Eʻ 0?A>C+>Dʻ >,>.Eʻ A<.+ʻ 1'ʻ+@>ʻ >0C<BABA>0+ʻ @>ʻ <AP A><.>Dʻ 10ʻ +@>ʻ ' >%Dʻ ?#A>.$%Eʻ B1#0+>Dʻ <0Dʻ D.>??>Dʻ 0ʻ C1BA%>+>ʻ <.B1#.Lʻ <0D!ʻ <?ʻ ?@>ʻ , ? +>Dʻ +@>ʻ D '% >.>0+ʻ F#<.+>.?ʻ <0Dʻ .>, >J>Dʻ @>.ʻ +.11A?!ʻ ?@>ʻ <DB 0 ?+>.>Dʻ J1.D?ʻ 1'ʻ C1BB>0D<+ 10ʻ 1.ʻ ?EBA<+@E!ʻ ?# +>Dʻ +1ʻ +@>ʻ C10D + 10ʻ 1'ʻ+@>ʻ ?1%D >. T

0ʻ 10>ʻ 1CC<? 10!ʻ ?@>ʻ >KA.>??>Dʻ <ʻ D>? .>ʻ +1ʻ +<H>ʻ <ʻ 0><.>.ʻ ?#.,>Eʻ 1'ʻ+@>ʻ C +Eʻ 1.ʻ +@ ?ʻ A#.A1?>ʻ <ʻ @1#?>ʻ J<?ʻ ?>%>C+>D!ʻ <''1.D 0=ʻ +@>ʻ $>?+ʻ A1 0+ʻ 1'ʻ , >J!ʻ 0ʻ +@>ʻ % ++%>ʻ , %%<=>ʻ 1'ʻV#$ <!ʻ <+ʻ 01ʻ =.><+ʻ D ?+<0C>ʻ '.1Bʻ .<P 0<D<ʻ @>ʻ H 0=ʻ <0Dʻ F#>>0ʻ ?+<+ 10>Dʻ +@>B?>%,>?ʻ $>'1.>ʻ <ʻ J 0D1Jʻ J@ C@ʻ C1BB<0D>Dʻ <0ʻ #0$.1H>0ʻ A.1?A>C+ʻ 1'ʻ +@>ʻ %@<B$.<ʻ <0Dʻ +@>ʻ B1?+ʻ $><#' '#%ʻ F#<.+>.ʻ 1'ʻ+@>ʻ +1J0ʻ 0ʻ +@>ʻ B><0ʻ J@ %>!ʻ <ʻ C10? P D>.<$%>ʻ '1.C>ʻ #0D>.ʻ +@>ʻ <.F# ?M #H>ʻ 1'ʻ <D Gʻ @<Dʻ $>>0ʻ 1.D>.>D!ʻ '1.ʻ +@>ʻ A.1+>C+ 10ʻ 1'ʻ +@>ʻ .1E<%ʻ A>.P ?10?!ʻ +1ʻ +<H>ʻ #Aʻ <ʻ A1? + 10ʻ $>+J>>0ʻ +@>ʻ , %%<=>ʻ <0Dʻ +@>ʻ C +Eʻ 1'ʻ .<0<D<!ʻ J +@ʻ ?+. C+ʻ 0"#0C+ 10?ʻ 10ʻ 01ʻ <CC1#0+ʻ +1ʻ >0=<=>ʻ +@>ʻ >0>BE!ʻ <?ʻ ?<$>%%<ʻ J<?ʻ #0P J %% 0=ʻ +1ʻ ?+< 0ʻ +@>ʻ A%><?#.>?ʻ 1'ʻ +@>ʻ D<Eʻ J +@ʻ #0P 0>C>??<.Eʻ >''#? 10ʻ 1'ʻ$%11D

Yʻ % ʻ .%)5 % ʻ %)ʻ)5,ʻ $' ʻ5 ʻ Cʻ5)ʻ)%)5 ʻ
5% %ʻ 2$% ʻ ,) ʻ %) ʻ 0$ Gʻ
ʻ$)ʻ %)5% ʻ5 %5 4 2$ʻ %),),% %ʻ 2$% 2$, ʻ ʻ
ʻ:) %ʻO ʻ %ʻ') ʻ 5%5 ![
ʻ ʻ,).,(ʻ)%)5 ʻ *$ % 5 ʻ ʻ %%(, ʻ !
Cʻ %14,)ʻ .,) ʻ %ʻ C)% *!* !

@>' A>1A%>' 1'' .<0<D<!' @1J>,>.!' J>.>' +11' BP A<+ >0+' %10=' +1' >0D#.>' +@>' A.>?>0C>!' <0D!' <?' +@>E' D>>B>D' +!'+@>' $.<,<D1'1''+@> .' >0>BE' @>E'$#.?+' '1.+%'' '.1B' +@>' =<+>?' 1''+@>' C<A +<%!' D.<== 0=' <%10=' J +@' +@>B' ?>,>.<%' A >C>?' 1'' 1.D0<0C>!' <0D' C1BP B>0C>D' <' $. ?H' <??<#%+' 10' +@>' A<0 ?@' % 0>?' @>' %<++>.' ?#?+< 0>D' +@>' ?@1CH' J +@' ' .B0>??!' + %%' +@>' <.F# ?' 1'' <D G!' ?>> 0=' +@>B' +@.1J0' 0+1' ?1B>' D ?1.D>.!' '1#0D' +' 0>C>??<.E'+1' <??#B>' +@>' 1''>0? ,>!' <0D!' B#?+>. 0=' @ ?' '1%%1J>.2' <.1#0D' @ B!' B<D>' 10>' 1''+@1?>' D>?A>.<+>' C@<.=>?' J@ C@' @<D' ?1' 1'+>0' $.1H>0' +@>'>0>BE' @>' 11. ?@' C<,<%.E' '<%+>.>DL' $#+' B =@+' @<,>' D ?A#+>D' +@>' =.1#0D' @<D' +' 01+' $>>0' '1.' +@>' 0'<0+.E!' J@ C@!' C1BA1?>D' 1'' +@>' .<$$%>' A1A#%<+ 10' 1'' +@>' C +E!' J<?' ><? %E' +@.1J0' 0+1' C10'#? 10!' <0D' @#.. >D' +@>' @1.?>' <%10=' J +@' +@>B' @>' .1#+' 01J' $>C<B>' =>0>.<%' @>' A<0 ?@' C<,<% >.?!' J@1?>' $%11D' J<?' #A!' A#.?#>D' +1' +@>' ,>.E' =<+>?' 1'' .<0<D<!' W' <0D' 01+' <' %<0C>!R' ?<E?' >.0<%D>G!' W' +@<+' D<E!' $#+' J<?' DE>D' 0' +@>' $%11D' 1'' +@>' 0' D>% R' J1' +@1#?<0D' 1'' +@>' >0>BE' J>.>' ?%< 0' <0D' +<H>0' 0' +@>' >0=<=>B>0+!' J@ C@' %<?+>D' 10%E' <' ?@1.+' + B>L' <0D' +@>' ?%<#=@+>.' J<?' ?+1AA>D' 10%E' $E' +@>' >?P C<A>' 1'' +@>' '#= + ,>?' J +@ 0' +@>' J<%%?' 1'' .<P 0<D< T

$1#+' +@>' B DD%>' 1'' /#%E"&<.' <CC D>0+' 1CC#..>D' 0

ć >B<%D>G! ?+ D>%14' >E>?!' %1?' >E>?' <+' C' CKKK OV#M' 'C'C O 10D>!' 1B 0'D>%1?' .+<' 0<%!' D>' .<=10!' +1B' ,' .<$>?!' +1B' ' C' K% O 5>+' C<A' KKK, <.+E.!' A#?' A?+1%<.#B!' % $' ?<$>%%<' <'+>.J<.D?' C<#?>D' <' ,'>A' KCO 5#%=<.!' .10C<' D>' .<0C ?C<0' B10<?+>.E'+1'$>'$# %+

+@> C<.<A J@ C@ @<D % H> +1 @<,> $>>0 <++>0D>D J +@ <%<. B 0= C10?>F#>0C>? ' @> F#>>0 J<? %1D=>D 0 < ?#A>.$ A<, % 10 $>%10= 0= +1 +@> <.F# ? 1 <D G! <0D <%J<E? #?>D $E @ B 0 +@> 11. ?@ J<. ' E +@> C<.>%>??0>?? 1 10> 1 @>.' <++>0D<0+?! <%<BA J<? A%<C>D 0 ?#C@ < ? +#<+ 10 +@<+! D#. 0= +@> 0 =@+! A>.@<A? 1J 0= +1 < =#?+ 1 J 0D! + ?>+ ' .> +1 +@> D.<A>.E 1.'%11?> @<0= 0=? 1 +@> A<, % 10! J@ C@ J<? 0?+<0+%E 0 < $%<G> ' @> ' <B> C1BB#0 C<+>D J +@ '><.'#% .<A D +E +1 +@> 0> =@$1#. 0= +>0+?! B<D> 1 % =@+ C1B$#?+ $%> B<+>. <%?! <0D +@> C<BA J<? B>P 0<C>D J +@ =>0>.<% C10'%<=.<+ 10 ' @ ? 1CC#..>D <+ +@> D><D 1 0 =@+! J@>0 <%% $#+ +@> ?>0+ 0>%? J>.> $#. >D 0 ?%>>A ' @> F#>>0 <0D @>.' C@ %D.>0! J@1?> <A<.+B>0+? J>.> 0><.' @>.?! J>.> 0 =.><+ A>. %! <0D >?C<A>D J +@ D '' C#%+E! +@1#=@ '1.+#0<+>%E J +@1#+ 0"#.E ' @> <%<.B ?110 ?A.><D ' @> +.#BA>+?! ?1#0D>D +1 <.B?! '1.' + J<? ?#AA1?>D +1 $> ?1B> 0 =@+ <++<CH 1 +@> >0>BE ' >.D 0<0D! ?0<+C@ 0= #A @ ? <.B? @<?+ %E! A#+ @ B?>%" <+ +@> @><D 1 @ ? +.11A?L $#+! ?110 <?C>.+< 0 0= +@> 0<+#.> 1 +@> D ?P <?+>.! C10+>0+>D @ B?>%" J +@ A1?+ 0= +@> <.F# ? 1 <D G J +@ < ?+.10= $1DE 1 @1.?> 1,>.' <=< 0?+ +@> C +E! 0 1.D>.' +1 .>A>% <0E ?<%%E '.1B +@<+ F#<.+>. ' 10>! @1J>,>.! J<? <++>BA+>DL <0D +@> ' .> J<? <+ %>0=+@ @<AA %E >K+ 0=# ?@>D J +@1#+ A>.?10<% 0"#.E! +@1#=@ 01+ J +@1#+ %1?? 1 B#C@ ,<%#<$%> A.1A>.+E

0 C1BB>B1.<+ 10 1"+@ ? >,>0+ ?@> J +0>??>D +@> <C+ 10! ? ' <+ V#$ <! J@.>! <CC1.D 0= +1 $> ?>>0 <+ +@> A.>?>0+D<E D> . ' ., 0=! +@> @1#?> '.1B J@ C@ 10F#>?+1' .<0<D<!C@'KC') !

0 "> J >%?! A%<+>! $.1C<D>! <0D 1+@>.' C1?+%E D>C1.<+ 10? 1 ' +@> +>0+? 1 ' +@> 01$ % +E T

0 1.D>.' +1 =#<.D <=< 0?+ < ? B %<.' D ?<?+>.! <? J>%% <? +1 A.1, D> C1B'1.+<$%> J 0+>.' F#<.+>.? '1.' +@> <. BE! ?@1#%D +@> ? >=> $> ?1 %10= A.1+.<C+>D <? +1 .>F# .> +! + J<? .>?1%,>D +1 $# %D < +1 J 0 1 '?#$M! ?+<0+ <% >D $C>? 10 +@> A%<C> 1 ' +@> A.>?>0+ >0C<BAP B>0+ @> A%<0 J<? B B>D <+>%E A#+ 0 >K>C#+ 10 @> J1.H J<? D ?+. $#+>D 0 D#> A.1A1.+ 10? <B10= +@> +.11A? 1 ' +@> ?>,>.<% C + >? <0D 1 ' +@> =.><+ 01P $ % +E L +@> ?1%D >.' J<? 10 < ?#DD>0 C10,>.+>D 0+1 +@> <.+ ?<0! <0D! 0?+><D 1 ' J<.! +@>'C<BA >C@1>D +1 +@> ?1#0D? 1 ' A><C>'#% %<$1#.

0 %>??? +@<0 +@.>> B10+@?! +@ ? ?+#A>0D1#? +<?H J<? <CC1BA% ?@>D @> ?A1+ ?1 .>C>0+%E 1CC#A >D $E % =@+ '%#++>. 0= A<, % 10?! J<? +@ CH%E C1,>.>D J +@ ?1% D ?+.#C+#.>? 1 '?+10> <0D B1.+<.! C1BA.>@>0D 0=! $>? D>? DJ>%% 0=M@1#?>?! ?+<$%>? '1.' < +@1#?<0D @1.?>? @> +1J0 J<? +@.1J0 0+1 < F#<D.<0=#%<.' '1.B! +.<,>.?>D $E +J1 ?A<C 1#? <,>0#>?! 0+>.?>C+ 0= ><C@ 1+@>.' <+ . =% + <0=%>? 0 +@> C>0+.> 0 '1.B 1 ' < C.1??! J +@ ?+<+>%E A1.+<%? <+ ><C@ 1 ' +@> '1#.' >K+.>B + >? 0?C. A+ 10? 10 $%1CH? 1 ' B<.$%>! 0 +@>,<. 1#? F#<.P +>.?! .>C1.D>D +@> .>?A>C+ ,> ?@<.>? 1 ' +@> ?>,>.<% C + >? 0 +@> >K>C#+ 10 1 ' +@> J1.H @>0 + J<? C1BA%>+>D! +@> J@1%> <.BE J<? D>? .1#? +@<+ +@> 0>J' C +E ?@1#%D $><.' +@> 0<B> 1 ' +@> .' %%#?+. 1#?

Q ! % C ' 3! 3, ! 3 3%0,%' 1!,,'3! / ! J 5%' F(,! J)%5 G' 8, ! ! (! (,! *),(%5 ' ' '3! H> J' J :%,4%C' * 13)5! 8, ' 5 ' % 1 ' 4 ,)' ,4!,! (!F.,,,!

F#>>0L $#+ ?<$>%%< B1D>?+%E D>C% 0>D +@$ +. $#+>!
<0D $>?+1J>D 10 +@> A%<C> +@> + +%>1 '
+1H>0 1 ' +@> #0?@<H>0 +.#?+! B<0 '>?+>D $E @>.
A>1A%> +@.1#=@1#+ +@ ? J<.! 0 D , 0> 5.1, D>0C>
+@ +@ ? 0<B> + ?+ %% ?+<0D? <? + J<? >.>C+>D 0
6: ! < B10#B>0+ 1 ' +@> C10?+<0CE <0D >0D#. 0=
A<+ >0C> 1 ' +@> A<0 <.D?! Q +@> 10%E C +E 0 A< 0!R
0 +@> J1.D? 1 ' < <?+ % <0 J. +>.! Q +@<+ @<? 0>,>.
$>>0 C10+<B 0<+>D $E +@> 1?%>B @>.>?E R T
@> >.>C+ 10 1 ' <0+< $E +@> A<0 <.D? ?+.#CH
< =.><+>. D<BA 0+1 +@> A>1A%> 1 ' .<0<D< +@<0
+@> B1?+ ?#CC>??'#% B % +<.E <C@ >,>B>0+ C1#%D @<,>
D10> @>E $>@>%D +@> >0>BE ?>++ 0= '11+ 10 +@> .
?1 % J +@ < .>?1%#+ 10 0>,>. B1.> +1 .>? =0 + @>E
<%.><DE $>=<0 +1 ?#''>. '.1B +@> . =1.1#? $%1CH<D>!
J@ C@ >''>C+#<%%E >KC%#D>D ?#AA% >? '.1B +@> . 1J0
+>.. +1. >?! J@ %> <%% C1B B#0 C<+ 10 J<? "><%1#?%E
0+>.C>A+>D J +@ '. C< EBA+1B? 1 ' 0?#$1.D P
0<+ 10 @<D $>=#0 +1 ?@1J +@>B?>%,>? <B10= +@>
1,>.=.1J0UA1A#%<+ 10 1 '+@> C +E! <? + '>%+ B1.> <0D
B1.> +@> A.>??#.> 1 ''<B 0> `+@ ?. C. ? ?! +@> #0P
'1.+#0<+> $D<%%<@ <0D @ ? A. 0C A<% C1#0?>%%1.? $>P
C<B> C10, 0C>D +@<+ +@> A%<C> C1#%D 01+ $> B< 0M

Q %5% 4 %(! :) %
5 3%)% 1!,,!33! IDD!IDI!
J ! % C 3! 3, ! 3!
F(,!J % 1 ,4!,!(!F.,,
8C %BA 14 , A A,0 ;
,53 B, A ((% ,)% F %(
0 1 A 4 %$,0$ 4% %53 C
0 3%,) T.) (11 1 ;
%,) ' A (,) 0 %) !

Z * (%5% %) %
( ) 1$(A ,)G)(%5
% 5 5# 1$(A% ,)5%
5 5% C 4 (%5 !
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*)5
) 5 ' %) %5 [\(!
:$ % *,., 5
: %)%5% 3! 6 6!

+< 0>D B#C@ %10=>.L <0D <+ %>0=+@! 0 +@> B10+@ 1'
C+1$>.! A.1A1? + 10? J>.> B<D> +@.1#=@ +@> , G >.
$ % <G B $D>%B<% C! +1 1A>0 < 0>=1+ <+ 10 '1.
+@> ?#..>0D>. 1' +@> A%<C> @>' <''< . J<? +1 $>
C10D#C+>D J +@ +@> #+B1?+ C<#+ 10! ? 0C> +@> A>1A%>
1' .<0<D<! 01+J +@?+<0D 0= +@> . A.>C<. 1#? C10D P
+ 10 <0D +@> . D ?F# >+#D>! J>.> $#1E>D #A $E 0D>P
' 0 +> >KA>C+<+ 10? 1' .>% >' '.1B ' . C< 1. ?1B>
1+@>. F#<.+>.

@> A<0 ?@ ?1,>.> =0? >0+.#?+>D +@> 0>=1+ <+ 10
+1 +@> . ?>C.>+<.E! >.0<0D1 D> V<'.<! <0D +1 10M
?<%,1 D> 1.D1,<! +@> %<++>. 1' J@1B J<? ?>%>C+>D
'1. +@ ?! D>% C<+> $#? 0>?? '.1B @ ? #0C1B B10 <DD.>??
<0D @ ? '<B % <. +E J +@ +@> 11. ?@ @<$ +? <0D %<0P
=#<=> +@#? +@> C<A +#%<+ 10 1' .<0<D< J<? .>'>.P
.>D +1 +@> B<0 J@1 <CF# .>D 0 @>. %10= J<.? +@>
B % +<.E ?C >0C> J@ C@ >0<$%>D @ B! <+ <%<+>. A>. 1D!
+1 '1 % +@> B1?+ D ?+ 0=# ?@>D =>0>.<%? 1' #.1A>

@> C10'>.>0C>? J>.> C10D#C+>D $E 0 =@+! J +@
+@> #+B1?+ ?>C.>CE! ?1B>+ B>? J +@ 0 +@> J<%%? 1'
.<0<D<! <0D <+ 1+@>.? 0 +@> % ++%> @<B%>+ 1' @#.M
. <0<! <$1#+ < %><=#> D ?+<0+ '.1B + W + %>0=+@!
<'+>. %<.=> D ?C#?? 10 10 $1+@ ? D>?! +@> +>. B? 1'
C<A +#%<+ 10 J>.> D>' 0 + ,>%E ?>++%>D! <0D .<+ ' >D
$E +@> .>?A>C+ ,> B10<.C@? 10 +@> 78+@ 1' 1,>BP
$>. 6: T

L 5 %G%) ,' 'C F( )(! 5 : %) *% 5)% 3! ! J
5 : %)%5% 0 ! /D! J !? .,$ *% 5)) 8, ! 5K 0,2$
>E,?,! %')," :) % .," %3! 5K 3%') 1! ,,,! 33!
E,00, !E, $1 '33! ?? ? I /! J *)5 1,)%(! 5
J % %G% 5)5 G% *)! %4 1! ,,,! (%3! F,,! J

@>' C10D + 10?' J>.>' 1'' ? B %<.!' +@1#=@' ?1B>J@<+' B1.>' % $>.<%' BA1.+!' +@<0' +@1?>' =.<0+>D' +1' <G<' @>' 0@<$ +<0+?' 1'' .<0<D<' J>.>' +1' .>+< 0' A1??>?P ? 10' 1''+@> .' B1?F#>?!' J +@' +@>' '.>>'>K>.C ?>' 1''+@> .' .>% = 10' J +@' <%%' +?' A>C#% <.' . +>?' <0D'C>.>B10 >?L' +@>E' J>.>' +1' $>' "#D=>D' $E' +@> .' 1J0' %<J?!' #0D>.' +@> .' 1J0' C<D ?' 1.' B<= ?+.<+>?!' ?#$">C+' +1' +@>' =>0>P .<%' C10+.1% 1''+@>' <?+ % <0' =1,>.01.' +@>E' J>.>' +1' $>' #0B1%>?+>D' 0' +@> .' <0C >0+' #?<=>?!' B<00>.?!' %<0P =#<=>!' D.>??' L' +1' $>' A.1+>C+>D' 0' +@>' '#%%' >0"1EB>0+' 1''+@> .' A.1A>.+E!' J +@' +@>' . =@+' 1'' D ?A1? 0=' 1'' +' 10' +@> .' 1J0' <CC1#0+!' <0D'1'' B =.<+ 0=' J@>0' <0D' J@>.>' +@>E' J1#%DL' <0D' +1' $>' '#.0 ?@>D' J +@' ,>??>%?' '1.' +@>' C10,>E<0C>' 1'' ?#C@' <?' C@1?>' J +@ 0' +@.>>' E><.?' +1' A<??' 0+1' '. C<' 1' @><, >.'+<K>?' J>.>' +1' +1' $>' BA1?>D' +@<0T'+@1?>' C#?+1B<. %E' A< D' +1' +@> .!' .<$ <0' ?1,>.> =0?!' <0D' 010>' J@<+>,>.' $>'1.>' +@>' >KA .<+ 10' 1''+@.>>' E><.?' S 0=' $D<%%<@' J<?' +1' .> =0' 1,>.' <' ?A>C ' >D' +>.. +1.E' 0' +@>' %A#K<..<?!' '1.' J@ C@' @>' J<?' +1' D1' @1B<=>' +1' +@>' <?+ % <0' C.1J0' @>' <.+ %%>.E' <0D' +@>' '1.+ ' C<+ 10?' J>.>' +1' $>' D>% ,>.>D' 0+1' +@>' @<0D?' 1'' +@>' @. ?+ <0?!' <0D' +@>' C +E' J<?' +1' $>' ?#..>0D>.>D' 0' ? K+E' D<E?' '.1B' +@>' D<+>' 1'' +@>' C<A +#%<+ 10' #C@' J>.>' +@>' A. 0P C A<%' +>. B?' 1'' +@>' ?#..>0D>.' 1'' .<0<D<!' <?' <#+@>0M

!' %,) ' ,($ ' * %' 1!' P 4 ,)'5' ' , (' ,4!,!' 5' 3%)%'0 !' /I!J' % 1 ' (%3!' F,F!X' A, ' %$A ' A%' A B . ' % ,') ' A ' 5% ' ,)' ', .)' A ' % ,(' 0' A ' % C' A ' F ' '%' 3% % ' (%3, $ %; B, A' ' % ' 0$) ' %)5' 3 (,; ,)' 3 (,)'' 45% %A< 3 ; ,)' A%)' %)C' A ' 3%), A'A, ; 3),)'' A% < 1%5 ' ,)' 4 A% 0' 0' ,%)! A ' (, C' ' A ' 5%C ' % !

+ C<+>D' $E' +@>' B1?+' <CC.>D +>D' <?+ % <0' <0D' .<$ <0' <#+@1. + >?' L' J@ C@' ' @<,>' ?+<+>D' +@>' B1.>' A.>C ?>%E!' <?' <''1.D 0=' +@>' $>?+' D<+<' '1.' >?+ B<+ 0=' +@>' >K+>0+' 1'' A<0 ?@' A>.' DE' 0' %<+>.' + B>? T

@>' C10'>.>0C>?' C1#%D' 01+' $>' C10D#C+>D' ?1' ?>P C.>+%E' $#+' ?1B>' .>A1.+' 1'' +@>B' =1+' < .' <B10=' +@>' A1A#%<C>' 1'' +@>' C +E!' J@1' 01J' .>=<.D>D' $D<%%<@' J +@' <0' >, %' >E>' '1.' @ ?' C100>K 10' J +@' +@>' @. ?P + <0?' @>0' +@>' '<C+' 1'' +@>' C<A +#%<+ 10' $>C<B>' H01J0!' +@>' <= +<+ 10' ?A>>D %E' ?J>%%>D' 0+1' <0' 1A>0' 0?#..>C+ 10!' J@ C@' B>0<C>D' +@>' ?<'>+E' 1'' +@>' C +E' <?' J>%%' <?' $D<%%<@ ?' A>.?10' 0' +@ ?' <%<.B 0=' ?+<+>' 1'' +@ 0=?!' +' J<?' +@1#=@+' $>?+' $E' +@<+' B10<.C@ ?' C1#0?>%%1.?' +1' <0+ C A<+>' +@>' <AA1 0+>D' D<E' 1'' ?#.P .>0D>.!' <0D' +@>' 70D' 1'' /<0#<.E' 6:7' J<?' <CC1.DP 0=%E' ' K>D' 10' '1.' +@<+' A#.A1?>

,>.E' A.>A<.<+ 10' J<?' B<D>' $E' +@>' A<0 <.D?' '1.' A>.'1.B 0=' +@ ?' %<f+' <C+' 1'' +@>' D.<B<' J +@' ?# +<$%>' A1BA' <0D' >''>C+' @>' B1#.0 0=' J@ C@' +@>' C1#.+' @<D' A#+' 10' '1.' +@>' D><+@' 1''5. 0C>' %10?1' 1''51.+#P =<%!' 1CC<? 10>D' $E' <' '<%%' '.1B' @ ?' @1.?>' <' '>J' B10+@?

L' % 1 ' 4 '5 ' ' >' A 'A, C' 0' : %)%$%' $ ') ' , (' ,4!' ,!' (!' F,F! J *)5 ' 1' ' A,)@' A ' (%3, $ % ,) ' 1! 5 ' ' %4!' 1!' ,,,!' (! B A' 3 (,0C,)'! ' 0' A ' F ,,! J N$, % ')% '5 ' %')' 1 5 1' *% , ,%) ' 3% ' . C' 1!' ,,!' (! F(! J'*% 5)) ' 8, !' ,'A C' . ' A 1<' A C'0$), A' 5K 0 !' '5% 3%') ' 1!' ,,,!' 33!' ' 4, ' %' (1 1)')' A ' I I! J'#$,)($%')%' 5 ' ( )5$(' 0' $4 2$)' 3%), A' ., 5 ' ! % !' ' 2$,)(!' ' 1)% (A !' % 1 '%)5' A '+$; 5,%!' I!' % C'%55 ' A%'3 A ' 5,(, $' N$, %' %' ' ,)' . C' 3 ,)(,3%' , A') 4, , C' B ' $4 %) ,%'3% ,($ %' B, A' *); ' 1 .'0 1' A ' (, C! P 3$' 5 ' %)5' A, ' (,)(,5)(' 1%C' 4 ' 3, % $1 ' 3! F(,,!X' 5 %G%' ( ) ,5 5' % %4 , A,)'' A ' BA' A%' 5 . 5' %' . $1 ' %($%' 1 ' 0' A ' % C!

<'+>.' @ ?' B<.. <=>' J +@' +@>' 0'<0+<' ?<$>%%<!' J<?' >KP C@<0=>D' '1.' =<E' <0D' B<=0 ' C>0+' <AA<.>%' /<0 ' 7!' 6:7 ' 0' +@>' B1.0 0=' 1'' +@>' 7D!' +@>' J@1%>' @. ?P + <0' C<BA' >K@ $ +>D' <' ?C>0>' 1'' +@>' B1?+' <0 B<+P 0=' $#?+%>' @>' .<0D' <.D 0<%' >0D1G<' J<?' ?>0+' '1. J<.D' <+' +@>' @><D' 1'' <' %<.=>' D>+<C@B>0+!' C1BA.>P @>0D 0=' @ ?' @1#?>@1%D' +.11A?!' <0D' +@>' ,>+>.<0' 0P '<0+.E'=.1J0' =.>E' 0' +@>' 11. ?@' J<.?!' +1' 1CC#AE' +@>' %@<B$.<' A.>A<.<+1.E' +1' +@>' >0+.<0C>' 1'' +@>' ?1,>P .> =0? T' >.D 0<0D' ?+<+ 10>D' @ B?>%'' <+' ?1B>' D ?P +<0C>' 0' +@>' .><.!' 0><.'<0' .<$ <0' B1?F#>!' ? 0C>'C10P ?>C.<+>D' <?' +@>' @>.B +<=>' 1'' +' >$<?+ <0' >' J<?' ?#..1#0D>D' $E' @ ?' C1#.+ >.?' J +@' +@> .' ?+<+>%E' .>+ P 0#>?!' =% ++>. 0=' 0' =1.=>1#?' A<01A%E!' <0D' A.1#D%E' D ?A%<E 0=' +@>' <.B1. <%' $><. 0=?' 1'' +@> .' <0C >0+' @1#?>?' @>' F#>>0' @<%+>D' ?+ %%' '<.+@>.' 0' +@>' .><.!' <+' +@>' , %%<=>' 1'' .B %%< '

?' +@>' C1%#B0' #0D>.' +@>' =.<0D' C<.D 0<%' <DP ,<0C>D' #A' +@>' @ %%' 1'' +@>' <.+E.?!' 1,>.' J@ C@' <' .1<D' @<D' $>>0' C10?+.#C+>D' '1.' +@>' A<??<=>' 1'' +@>' <.+ %%>.E

Q' .,5 'BA ')% %,.' F; A,4,' 1%)C'5,(3%)(,' B,A' A ' 0' A ' ( ) 13 %,' % ,') ' A,' 3% ' ' A ' * $) ' 5 ')5,%' A ' 0,' *%3%,)' :) %' 0' : %)%5%!' P#$,)($%>' ')% ' ! % ! '2$,)(!' '5,%!' I!X' $'%' A,'B,' A $'A' %)' C >B,) 'B%'4$' A,')' 0 $)' C % ' 0'%'%' A' ,1 ' 0' A ' (%3 $ ' %)5' B ' 1 ' ,F C' C % ' % ' 0 1' A ' % C' ((,) ' A,'%$> ,1.!'

A ,C' (%)) ' 4 ' ( ) ,5 5' 0' 2$%' B ,'A' B,A' A% ' 0'3 ;) 'BA ' ,@ ' % C '5 (,4 5' .) '%' A C' B '3% ,)''4 ; 0 ' A 1!

' 5 %G%') ,'!' C' F(' 5 ' : %)%5%' 0 ! /6! J %%G%' *)'5 ' : %)' *% 5)% '3!' I!' J N$,%')% '5 ' %')' 1!' ,.!' (%3!' F(! J ! % C ' 3$' 3, % $1 ' 3!' F(,,! J 4% (%' C '5 ' %')' 1!' ,,! 0 ! H! J % 1 ' ,4!' ,!' (! FF!

@>' J<?' B>+' $E' +@>' 11. ?@' A. 0C>!' $D<%%<@!' <++>0DP >D' $E' ' '+E' C<,<% >.?!' J@1' D>?C>0D 0=' +@>' @ %%' .1D>' #A' +1' +@>' A1? + 10' 1CC#A >D' $E' >.D 0<0D' 10' +@>' $<0H?' 1''+@>' ; >0 % ' ?' +@>' 11.' <AA.1<C@>D' +@>' A<0 ?@' H 0=!' @>' J1#%D' @<,>' +@.1J0' @ B?>%'' '.1B' @ ?' @1.?>' <0D' ?<%#+>D' @ ?' @<0D' 0' +1H>0' 1''@1B<=>L' $#+' >.D P 0<0D' @<?+ %E' A.>,>0+>D' @ B!' >B$.<C 0=' @ B' J +@' >,>.E' B<.H' 1''?EBA<+@E'<0D' .>=<.D' $D<%%<@' +@>>' D>% ,>.>D'#A' +@>'H>E?' 1''+@>' %@<B$.<' +1' @ ?' C10F#>P .1.!' ?<E 0=!' Q' @>E' <.>' +@ 0>!' ' H 0=!& ? 0C>' %%<@' ?C D>C.>>?' +L'#?>' +@E' ?#CC>??' J +@' C%>B>0CE'<0D' B1D>P .<+ 10 R' >.D 0<0D' J1#%D' @<,>'#++>.>D' ?1B>' J1.D?' 1''C10?1%<+ 10' +1' +@>' #0'1.+#0<+>' A. 0C>!' $#+' @>' B1,>D' '1.J<.D' J +@' D>">C+>D' <.' +1' +@>' ?A1+' 1CC#' A >D' $E' ?<$>%%<!' <0D!' <'+>.' ? B %<.' <C+?' 1''1$> ?<0C>!' A<??>D' 10' +1'"D a @ ?' UU %E!' J@1' @<D' A.>C>D>D' @ 0' J +@' @ ?' B1?+' ,<%#<$%>&T>''>C+?' 10' +$>' .1#+>' +1' +@>' %A#K<..<? T

0' +@>' B><0' J@ %>!' +@>' ?1,>.> =0?' J< +>D' J +@' BP A<+ >0C>' +@>' ? =0<%' 1''+@>' 1CC#A<+ 10' 1''+@>' C +E' $'' +@>' C<.D 0<%?' +.11A?!' J@ C@' J 0D 0=' ?%1J%E' <%10=' +@>' 1#+>.' C .C# +' 1''+@>' J<%%?!' <?' A.>, 1#?%E'<..<0=>D' 0' 1.D>.' +1' ?A<.>' +@>' '>>% 0=?' 1''+@>' C + G>0?' <?' '<.' <? A1?? $%>!' >0+>.>D' $E' J@<+' ?' 01J' C<%%>D' +@>' =<+>' 1' 1?' 1% 01?' 0' <!?@1.+' + B>!' +@>' %<.=>' ? %,>.' C.1?? $1.0>' $E' >.D 0<0D' +@.1#=@1#+' +@>' C.#?<D>!' J<?

Q' % 1 ' (!(,!J'*)5 ' (!(,!JN$,%')% '5' % 1,)%(!5' ' %4')' 3%>' ')' 1!' ,.!' (!F(!J #$,)($%)%' 1!',,,!' (!F,,,!' J 5%G%' ')%'5' .,5' ! %!') ,'$ 5!C' F('5' : %)%5%' 2$,)(!' 5,%!' I! 0!/!J' A%5G'8,!'!

ʻ ʻ ʻ

?>>0ʻ ?A<.H% 0=ʻ 0ʻ +@>ʻ ?#0M$><B?!ʻ J@ %>ʻ +@>ʻ ?+<0D<.D?ʻ 1'ʻ <?+ %>ʻ <0Dʻ +ʻ /<=1ʻ J<,>Dʻ +. #BA@<0+%Eʻ '.1Bʻ +@>ʻ .>Dʻ +1J>.?ʻ 1'ʻ +@>ʻ %@<B$.<ʻ +ʻ +@ ?ʻ =%1. 1#?ʻ ?A>C+<C%>!ʻ +@>ʻ C@1 .ʻ 1'ʻ +@>ʻ .1E<%ʻ C@<A>%ʻ $.1H>ʻ '1.+@ʻ 0+1ʻ +@>ʻ ?1%>B0ʻ <0+@>Bʻ 1'ʻ +@>ʻ >ʻ >#.<Lʻ <0Dʻ +@>ʻ J@1%>ʻ <.BE!ʻ A>0>+.<+>Dʻ J +@ʻ D>>Aʻ >B1+ 10!ʻ A.1P ?+.<+>Dʻ +@>B?>%,>?ʻ 10ʻ +@> .ʻ H0>>?ʻ 0ʻ <D1.<+ 10ʻ 1'ʻ +@>ʻ 1.Dʻ 1'ʻ 1?+?!ʻ J@1ʻ @<Dʻ <+ʻ %>0=+@ʻ =.<0+>Dʻ +@>ʻ C10P ?#BB<+ 10ʻ 1'ʻ +@> .ʻ J ?@>?!ʻ 0ʻ +@ ?ʻ %<?+ʻ <0Dʻ =%1. 1#?ʻ +. #BA@ʻ 1'ʻ +@>ʻ .1?? Tʻ @>ʻ =.<0D>>?ʻ J@1ʻ ?#..1#0DP >Dʻ >.D 0<0Dʻ +@>0ʻ <D,<0C>Dʻ +1J<.D?ʻ +@>ʻ F#>>0!ʻ <0D!ʻ H0>>% 0=ʻ D1J0!ʻ ?<%#+>Dʻ @>.ʻ @<0D& 0ʻ +1H>0ʻ 1'ʻ @1B<=>ʻ +1ʻ @>.ʻ <?ʻ ?1,>.> =0ʻ 1'ʻ .<0<D<ʻ @>ʻ A.1C>?? 10ʻ +11Hʻ #Aʻ +?ʻ B<.C@ʻ +1J<.D?ʻ +@>ʻ C +E!ʻ Wʻ +@>ʻ H 0=ʻ <0Dʻ F#>>0ʻ B1, 0=ʻ 0ʻ +@>ʻ B D?+!Rʻ ?<E?ʻ <0ʻ @ ?+1. <0!ʻ Wʻ >BP $%<G10>Dʻ J +@ʻ .1E<%ʻ @<=0 ' C>AC>Lʻ <&%'Dʻ <?ʻ +@>Eʻ J>.>ʻ 0ʻ +@>ʻ A. B>ʻ 1'ʻ% '>!ʻ <0Dʻ @<Dʻ 01Jʻ <C@ >,>Dʻ +@>ʻ C1BP A%>+ 10ʻ 1'ʻ +@ ?ʻ =%1. 1#?ʻ C10F#>?+!ʻ +@>Eʻ ?>>B>Dʻ +1ʻ .>A.>?>0+ʻ >,>0ʻ B1.>ʻ +@<0ʻ +@> .ʻ J10+>Dʻ B<">?+Eʻ F#<%ʻ J +@ʻ ><C@ʻ 1+@>.!ʻ +@>Eʻ J>.>ʻ .< ?>Dʻ '<.ʻ <$1,>ʻ +@>ʻ .>?+ʻ 1'ʻ +@>ʻ J1.%Dʻ @>Eʻ <AA><.>Dʻ 0D>>Dʻ B1.>

Qʻ #$,)($%')%ʻ5ʻ .,5ʻ !ʻ$4,ʻ $3%!ʻ)ʻ,ʻ 1,);5; 5ʻ 0ʻ % Kʻ5 (,3,)ʻ 0ʻ Aʻ 1 BA%ʻ ,1,%ʻ0 ,)'ʻ FA,; 4, 5ʻ4Cʻ Aʻ($%5 ʻ)ʻ A ,ʻ) %)(ʻ,) ʻ? $% 1!

((ʻ %33%,ʻ : $% 1ʻ , .5
((ʻ %55,% : $% 1ʻ , ('<
((ʻ5ʻ1, ʻ. (ʻ,1,%1)ʻ : $% 11ʻ %$%ʻ,ʻ) !

Wʻ Lʻ Qʻ L
ʻ'%)ʻ3%(ʻ(Aʻ2$ %3,ʻ 1%., %
(1)ʻ 3$ʻ) Tʻ% $,ʻ 3
%ʻ ( ) ,G,)ʻ^)((ʻ 1, %
ʻ,1 !ʻ,.)ʻ%00
%)ʻ %33)%ʻ 5K,))% G%ʻ %ʻ .,%
E ʻ%ʻ(, %![
@# "& # #ʻ .# !
*%) ʻ,,,!ʻ !ʻ !ʻ6!
ʻ

'.1B J@ C@ +@> 11. ?@ C@ >'+11H @ ? ?<D '<.>J>%%
1'+@> A. 0C>%E <$1D>? 1' @ ? E1#+@! ? C1B B>B1P
.<+>D $E +@> A1>+ C<% + +%> 1' . !O W @>%<?+ =@ 1'+@> 11. R
@> ?>F#>% 1' $D<%%<@ ? @ ?+1.E ? ?110 +1%D H> @ ? #0C%>! % V<=<%! @> A 0>D <J<E 0 @ ? $<.P
.>0 D1B< 0 1'+@> %A#K<..<?! #0D>.+@> ?@<D1J! <? + J>.>! 1' @ ? <0C >0+ A<%<C>? 0 +@> '1%%1J 0=
E><.> @> A<??>D 1,>.+1 >G J +@ @ ? '<B %E! @<, 0=
C1B B#+>D @ ? A>++E ?1,>.> =0+E '1.> < C10? D>.<$%>
?#B 1' B10>E A< D @ B @E +@> ?1,>.> =0?L <0D ?110
<'+>.> '>%% 0 $<++%> 0 +@> ?>., C> 1'<0 '. C<0 A. 0C>!
@ ? H 0?B<0 Q .>+C@>D B<0!R >KC%< B? < C<#?+ C
C@.10 C%>.1'@ ? 0<+ 10! Q J@1 C1#%D %1?> @ ? % '> 0
<01+@>. ? C<#?>! +@1#=@ @> D D 01+ D<.> +1 D > 0 @ ?
1J0 Z #C@!R C10+ 0#>? +@> .<$ <0! J +@ C@<.<CP
+>. ?+ C .>? =0<+ 10! Q J<? +@> B B#+<$%> D>C.>> 1'
D>?+ 0E % >??>D $> %%<@! J@1 >K<%+>+@ <0D D>$<?>+@
+@> H 0=? 1'+@> ><.+@ <CC1.D 0= +1 @ ? D , 0> J %%L
& 0 J@1?> '#%' %B>0+ C10? ?+? +@<+ >+>.0<% "#?+ C>
J@ C@ .>=#%<+>? < @#B<0 <''< .?ZR @> A1.+<%
+@.1#=@ J@ C@ S 0= $D<%%<@ '1.> +@> %<?+ + B > ??#>D
'.1B @ ? C<A +<%! J<? <+ @ ? .>F#>?+ J<%%>D #A! +@<+
010> 1+@>.> B =@+ <=< 0 A<??+@.1#=@ + 0 +@ ? C10P
D + 10 + .>B< 0? +1 +@ ? D<E! < B>B1. <% 1'+@> ?<D
D>?+ 0E 1'+@> %<?+ 1'+@> S 0=? 1' .<0<D< T
@> '<%% 1' .<0<D< >KC +>D =>0>.<% ?>0?<+ 10

L *)5 1! 5 % 4 * 13)5! 8, 5 3%0,% 1!
)3%)% 1!,,,! (!F(! J *% > ,.! ,4! F ! (!F,,! J % 1 >
5)) ! 8, !5K 0 ! 5K 3! 1! 4 ,) ,4!,! (!FF!
,,,! 33! H ! J : % ,4%C ! .,)' ,) A, 4 %$,

+@.1#=@1#+ @. ?+>0D1B! J@>.> + J<? .>C> ,>D <? C1#0+>.$<%<0C 0= 0 < B<00>.' +@>' %1??' 1'' 10?+<0+ P 01A%>! 0><.%E @<%'' < C>0+#.E $>'1.> + 1B>' +@>' >,>0+ J<? C1B B>B1.<+>D&$E < ?1%>B0 A.1C>?? 10 1'' +@>' A1A>' <0D C<.D 0<%?+1' +'5>+>. ?! J@>.>'@ =@ B<?? J<? C>%>$.<+>D! <0D +@>' A#$% C .>"1 C 0=' C10+ 0#>D '1.' ?>,>.<% D<E? T @>' 0+>%% =>0C>' J<? J>%C1B>D J +@' 01' %>?? ?<+ ?'<C+ 10 0 0=%<0D! J@>.>' >0.E ' J<? ?><+>D 10 +@>' +@.10>' @>' C .C#B?+<0C>? <++>0D 0=' +! <? .>%<+>D $E 1.D <C10! J %% 01+ $>' D>,1 D 1'' 0+>.>?+' '1.'+@>' .><D>. '

3%), A @ (A>4 @' A ' $; A%14 %K 5 . ' %' (A%3 ' ' 1 1) ' 0 %45, >',)' BA,(A' A ' %(' 1,)$ C A ' $ ' 0 A '5 3 5 1)% (A' %0 '2$, ; ,) '' A ' '% ' 0A, '(%3, %! A ' %1 '%$ A ',)' A '%33)5,F ' A, ' *A),(' 0 : %)%5%' ( ); ($5 '%') ,(' 0 45% %AK'0% ' B, A' A '0 B,) '' 5 (,3 ,)' 0 A, '3)! Z' '3 %, ' 0 %4; 5, ' *A,(', ' 4 ')',)' A ' 3,($ '% C 0 A ' :) %,0 ! 8 ', ' 3) 5 B, A'%' 1, 5 A%)5 1 '0%('%'0%, '(13 F,)' %)5 C B'A%, ! 8, '5 ', 0 C B' 4 (%5 ' , . 5 B, A' 4 %(@ . . ' %)5 A ' A%' %'4 %(@ . . ' (%3' $ 1 $) 5 B, A' %' (B)!)' A ' % 1 1 C 0 %; 5,5 % ' B ' $, ' 0 % 1 $ ' %,5 'A%. ' 4)' 5 'A,1 ' ' 0 ,5 'B, A' . C' , ')%; 1)'< A ' 1 ,)' (5! 1 'Q %)5 %4 %' '',)''%)5 #$)' 0 A ' 3 3 ,) ' 0 A ' $, ' 0 % 1 $ ' A ' 1$ ' A%. ' 4)' 0 0$ ' % $ ' %)5 .,' $ '0 1![' '3' HI

Q' % A !)% '% '* 1 1) ' 5 ' 4$' :)$) ! %3-' $ % , ' $1' % ,(! (,3 ' 1 'FF,.! 3! 6 ! J '0 1 5 A ' $4+ (' 0%' A % ,(%' 3) %,)' 4 ; 0 ' A ' ($ ' 0 %3 ',)'' A ' %1 'C % ! A '5 %1%' ' % %' %', ', '(% 5 4C, '5, ,) '$, A; 5 %$ A ' %))%G% ', '%)' % ; ' ,(%'1 5 C',)' BA,(A' 1 A' ? C' %)5 A ' 0% '3 3A ' %; A 1 '3 %C A ' 3 ,)(,3%' 3% ! A '5,00,($ C 0%' 3 (, '0(% ,> 0,(% ,)' 0 A, '3, ('A%' ',.)' , B%)) ' 5, ($,) ,)' 1 ' % ,%)' (, ,(' A%)' A ' $4+ ('1%C 4 ' A $'A ' B% ; %) ! ' ,') ,' * $ %) '5$ ' ,(, , ' 1! ,,,! 3! 6D ' ' 2!

'8 1 BA%'%4 $' A, ' ,1 ' (%1 ' ' 0 1' 5,)%)5 ' %)5 %4 %' '',)''%)5 #$)' 0 3%,)'< ,'),0C,)'' A '0,)%' ( )> 2$ 0 : %)%5%0 1' A ' < BA,(A'%(,)' ,)', 0 'B AC! '',)'' 5,)%)5 ' BA ' 1%)>

@#?ˢ >0D>Dˢ +@>ˢ J<.ˢ 1'ˢ .<0<D<!ˢ J@ C@ˢ ?ˢ 1'+>0ˢ C1BA<.>Dˢ $Eˢ +@>ˢ <?+ % <0ˢ C@.10 C%>.?ˢ +1ˢ +@<+ˢ 1'ˢ .1Eˢ 0ˢ +?ˢ D#.<+ 10!ˢ <0Dˢ J@ C@ˢ C>.+< 0%Eˢ '#%%Eˢ >F#<%%>Dˢ +@>ˢ %<++>.ˢ 0ˢ ,<. >+Eˢ 1'ˢ A C+#.>?F#>ˢ <0Dˢ .1B<0+ Cˢ 0C D>0+!ˢ <0Dˢ 0ˢ C .C#B?+<0C>?ˢ 1'ˢ A1>+ C<%ˢ 0+>.>?+ˢ +@ˢ +@>ˢ C<A+#.>ˢ 1'ˢ +?ˢ C<A +<%!ˢ +>. B 0<+>Dˢ +@>ˢ .<$ <0ˢ >BA .>ˢ 0ˢ +@>ˢ A>0 0?#%<!ˢ <'+>.ˢ <0ˢ >K ?+P >0C>ˢ 1'ˢ ?>,>0ˢ @#0D.>Dˢ <0Dˢ '1.+EM10>ˢ E>.?ˢ '.1Bˢ +@>ˢ D<+>ˢ 1'ˢ +@>ˢ 1. = 0<%ˢ C10F#>?+ˢ @>ˢ C10?>F#>0C>?ˢ 1'ˢ +@ ?ˢ C%1? 0=ˢ J<.ˢ J>.>ˢ 1'ˢ +@>ˢ @ =@>?+ˢ B1B>0+ˢ +1

) ˢ B%ˢ) . ˢ ˢ ˢ %)Cˢ ., $ˢ 0 ˢ Aˢ A B,)'ˢ A%5ˢ F3 5ˢ %)5ˢ 5, 3%C 5ˢ ,)ˢ A, ˢ ˢ%ˢ % 'ˢ B, Aˢ%ˢ Aˢ3% ,($%, , ˢ %)5ˢ ,'ˢ, $ˢ3$)(ˢ%)5ˢ (; 1), ˢ A%ˢ B ˢ 4 . 5ˢ ,)ˢ , ˢ (3 ,)ˢ 0ˢ A%ˢ (, Cˢ %)5ˢ @,)'5 1< A B,)'ˢ%1)'ˢ Aˢ A,)'ˢ A%ˢ Aˢ@,)'ˢ B $5ˢ) ˢ 4Cˢ %)Cˢ 1 %)ˢ ,)ˢ 3) ˢ Aˢ (, Cˢ$) ,ˢ Aˢ A%5ˢ0, ˢ% 0ˢ)ˢ , (ˢ ˢ$3ˢ$3)ˢ Aˢ ' % B 0: %)%5%ˢBA 4Cˢ ,ˢ4 (%1ˢ*A , ,%)'ˢ $)5!ˢ A%ˢ ,@ B, ˢ4 0 ˢAˢ B $5ˢ) ˢ Aˢ 5,5ˢ A 1%'ˢ ˢ : 5ˢ%4 . ˢ 3) $)(,)'ˢ 4Cˢ %)ˢ A %5ˢ0 1ˢ Aˢ A ,'Aˢ 0ˢ A%ˢ B ˢ A%ˢ Aˢ5,5ˢ%(@) B 5'ˢ ˢ A%. ˢ ; (. 5ˢ A%ˢ @,)'5 1ˢ 4Cˢ A ˢ A 3ˢ 0ˢ: 5ˢ 1,'AC ˢ%)5ˢ Aˢ ' , $ˢE, ',)ˢ%)5ˢ Aˢ ., $ $ˢ 3 ˢ !?%1 ˢ%)5ˢ Aˢ A Cˢ 0% A ˢ)) ( )ˢ Aˢ ,'AAˢ ; ' Aˢ B, Aˢ Aˢ%,5ˢ%)5ˢ .,(ˢ 0ˢA, ˢ3 % ˢ) 4 ˢ%)5ˢ(1; 1)ˢ! A%ˢC ˢAˢ , 5)ˢ 0 1ˢA, ˢ(%13ˢ , ˢAˢ A%5ˢ)ˢ %ˢ , ˢ% 1Cˢ 0ˢ1% C ˢ ˢ A)$14 ˢ 0ˢ .)ˢ A$)5 5ˢ %)5ˢ 1 ˢ*A , ,%) ˢ A% ˢA%5ˢ ,. 5ˢ ,)ˢ4)5ˢ%)5ˢ ,B, $5ˢ%ˢ %. ˢ ˢ Aˢ ˢ 3% ˢ4 0 ˢ A, ˢ C ˢ ,)',)''ˢ%ˢ3 % 1ˢ0 ˢ A , ˢ 5 13,)<%)5ˢ A%ˢ Aˢ A%5ˢ ',.)ˢ ,4$ˢ$) ˢ : 5ˢ4Cˢ% 1ˢ %)5ˢ , 0ˢ F)5 5ˢ ˢA 1ˢ% ˢ 0ˢA, ˢ%51, ,)ˢ,) ˢ Aˢ (, Cˢ A ˢ , ,)'ˢ B ˢ,)ˢ Aˢ ˢ B, Aˢ1%)Cˢ1 ˢ(1), ˢ 0ˢ% @,)5ˢ 0ˢA Cˢ) % ,)!

Yˢ Aˢ @,)'ˢ . ˢ B, ,)'ˢ ˢ 3$ˢA,1 0ˢ,) ˢ Aˢ( ) ˢ ˢ 2$, ˢ 0ˢ% ˢ ,', $ˢ%(,) ˢ%)5ˢ)% $ % Cˢ %00 (,)'ˢ 1$(Aˢ Aˢ '',)'ˢ 0ˢ 3%,)ˢ%ˢ0% ˢ% ˢ) ˢ@,),)'ˢ (%)ˢ%00 (ˢ%) A ˢ3% Cˢ0 ˢA, ˢ ., $ ˢ %)5ˢ 3% Cˢ0 ˢ% ($); 3 , ˢ ˢ %)(< $3)ˢ Aˢ (,3ˢ 0ˢ A ˢ ˢ)ˢ% ˢ A, ˢ) 4 ˢ%)5ˢ3 % ˢA%ˢB ˢ %4 $ˢ Aˢ($ ˢ ' Aˢ B, Aˢ Aˢ1%C ˢ%)5ˢ) 5)))ˢ 0ˢ); 5)ˢ,)ˢ ' %ˢ 1), Cˢ Aˢ (A$ (Aˢ 0ˢ %$ˢ A ˢ Aˢ%ˢ% 5 (% % ,)ˢ0 1ˢ Aˢ 5*A%); (ˢ) Bˢ (% 5,)% !ˢ 9A)

A< 0 @> B 1?+ 1$, 1#? J<? +@> .>C1,>.E 1 <0 >K+>0? ,> +> +1.E @ +@>.+1 @>%D $E < A>1A%> J@1?> D ?? B %<. +E 1 .>% = 10! %<0=#<=>! <0D =>0>.<% @<$ +?! B<D> +@>B 01+ 10%E 0C<A<$%> 1 <?? B %<+ 0= J +@ +@> . @. ?+ <0 0> =@$1#.?! $#+ <%B 1?+ +@> . 0<+#.<% >0>B >?L J@ %> +@> . %1C<% A1? + 10 J<? < B<++>. 1 "#?+ C10C>.0! <? 0+>.A1?>D $>+J>>0 +@> = ><+ D , P ? 10? 1 +@> A<0 ?@ B10<.C@E! <0D 1A>0 0= <0 1$P , 1#? <,>0#> +1 0,<? 10 '.1B '. C< E +@> 0>J C10F#>?+! B1.>1,>.! +@> A<0 <.D? =< 0>DW < %<.=> >K+>0+ 1 C1#0+.E! A1??>?? 0= +@> @ =@>?+ C<A<C + >? '1. A.1D#C+ 10 0 +? 0<+#.<% '.# +'#%0>?? 1 ?1 %! +>B M

A C B % 14 5 A (% 5,;)% %)5,) $3) A $33 ; 1 3 A% 03%(4 0 A 2$, %)5 % A) 4 3 ; % %)5 ' .) 0 A (, C % A 0 0 A %, 1%5 % 3 (A A 1 ,) A 1 @) B A% A C B % 14 5 ,) A% ( ) (% 5 3 %(,) $) : 5 %) B) '! $ A% K %,5 A $ A 1%)C C % A *A , ,%) A%.) '%,) 5) B ' 2)5 1 C $3) A ,)0,5)) % ' 5 %)5 0% A A !4 $)5 0 A *A , ,%) B 5! $ A, ,) B 5) 4C A 3 B %)5 5 . ,) 0 5,)%)5 %)5 %; 4 % '',) ' 0 3%,) BA A%. A , ,1 1 % A) $ (; . 5 A ' % %)5 ,(A@,) '5 1 0 : %)%5% %)5 A 3 3$ $ %)5 1,'A C (, C 0 A %1)%1 0 1 A A%.,) 4) ,) 3 ,) A 0 4C A 3%(0 .) A$)5 5 C % %)5 1 0 BA,(A A, % 1; 4 C%)5 % *A , ,%) % 5 %$5 %)5 A%)@ : 5 %)5 (4 % A,) 4 %(0 A '',) ' 0 3%,) BA ,) ,, , ,) C .,(, $ 4$ %3 ; ,(% ,) A '%,),) ' 0) B 3 ; .,)(A *A , ,%) 0%, A!)5 A % A 0 A% A, .,(; C %)5 ( )2$, 4 %,) 5 B, A $ 1$(A 00$,) 0 4 5! 9A 4C , , 4 A 3 5 A% A A% 4 '%,) 5)) C) B , C 4$,)0,), $ A *A$ (A 0 *A , BA 1 A 1,'A C 5 , 1 B $ 5 A%. , . 4 ( ). 5!K 8 > B, A% A 5,5 % 1 0 A 1 1 1 %4 3% ,($ % 0 A B% %)5 .,(C!)5 T0 A, 3 (A)5 5 A BA + % ; 14 C B) 1) C ,) 3 ; (,) %)5 $1 B% $) '![5 %( )K 8, 0 8) C E ! %3! 9 @ . !.! 33! I6 I < 5!)5) I H! OT % 8% *A)! 0) %)5 7 5! H 3! D6 !

A>.<+#.>' 1'' C% B<+>!' <0D' 0' +@>' ?+<+>' 1'' C#%+ ,<+ 10' +1'
J@ C@' +' @<D' $>>0' $.1#=@+' $E' +?' <0C >0+' 1CC#A<0+?L'
J@ %>' +?' ?@1.>?' J>.>' % 0>D' J +@' C1B B1D 1#?' @<,>0?!'
+@<+' <''1.D>D' >,>.E' '<C % +E' '1.' C1B B>.C>' @>'
?C<++>.>D' '.<=B>0+?' 1'' +@>' <0C >0+' ? =1+@ C' >BA .>'
J>.>' 01J' <=< 0!' J +@' +@>' >KC>A+ 10' 1'U+@>' % ++%>!'
?+<+>' 1'' <,<..>!' C1B$ 0>D' 0+1' 10>' =.><+' B10<.C@E!'
<?' 1. = 0<%%E' D>?+ 0>D' $E' 0<+#.>L' <0D' @. ?+ <0' A< 0'
=.<D#<%%E' .1?>!' $E' B><0?' 1'' @>.' 0>J' <CF# ? + 10?!'
'.1B' <' ?#$1.D 0<+>' ? +#<+ 10' +1' +@>' %>,>% 1'' <' '.?+M'
.<+>' #.1A><0' A1J>.

@>' B1.<% 0'%#>0C>' 1'' +@>' 11. ?@' J<.!' +?' 0P
'%#>0C>' 10' +@>' A<0 ?@' C@<.<C+>.!' J<?' @ =@%E' BA1.+P
<0+' @>' 0@<$ +<0+?' 1'' +@>' =.><+' D , ? 10?' 1'' +@>'
C1#0+.E!' <?' 0' B1?+' C1#0+. >?' D#. 0=' +@>' '>#D<% <=>?!'
@<D' $>>0' $.1#=@+' +11' '.>F#>0+%E' 0+1' C1%% ? 10' J +@'
><C@' 1+@>.' +1' <%%1J' +@>' >K ?+>0C>' 1'' <' A>.,<D 0='
0<+ 10<%' '>>% 0=' @ ?' J<?' A<.+ C#%<.%E' +@>' C<?>' 0'
A< 0!' J@>.>' 0D>A>0D>0+' ?+<+>?' 0?>0? $%E' =.>J' 1#+'
1'' +@>' D>+<C@>D' '.<=B>0+?' 1'' +>.. +1.E' .>C1,>.>D' <+'
D ''>.>0+' + B>?' '.1B' +@>' 11. ?@' B10<.C@E' @>'
J<.' 1'' .<0<D<' ?#$">C+>D' <%%' +@>' ,<. 1#?' ?>C+ 10?' 1''
+@>' C1#0+.E' +1' 10>' C1B B10' <C+ 10!' #0D>.' +@>' 0P
'%#>0C>' 1'' C1B B10' B1+ ,>?' 1'' +@>' B1?+' >KC + 0='
0+>.>?+L!' J@ %>' +' $.1#=@+' +@>B' 0' C10'% C+' J +@' <'
.<C>' J@1?>' >K+.>B>' .>A#=0<0C>' 1'' 0?+ +#+ 10?' <0D'
C@<.<C+>.' +1' +@> .' 1J0' ?>.,>D' =.><+%E' +1' 01#. ?@' +@>'
0<+ 10<% +E' 1'' ?>0+ B>0+& M' 0' +@ ?' J<E' +@>' ?A<.H' 1''
A<+. 1+ ?B' J<?' H 0D%>D' +@.1#=@1#+' +@>' J@1%>' 0<+ 10!'
<0D' +@>' B1?+' D ?+<0+' A.1, 0C>?' 1''+@>' A>0 0?#%<' J>.>

H0 +ˢ +1=>+@>.ˢ $Eˢ <ˢ $10Dˢ 1'ˢ #0 10ˢ J@ C@ˢ @<?ˢ ? 0C>ˢ .>B< 0>Dˢ 0D ??1%#$%>

@>ˢ C10?>F#>0C>?ˢ 1'ˢ +@>?>ˢ J<.?ˢ 0ˢ <ˢ B % +<.Eˢ <?A>C+ˢ <.>ˢ <%?1ˢ J1.+@Eˢ 1'ˢ 01+ C>ˢ Aˢ +1ˢ +@ ?ˢ A>. 1Dˢ J<.ˢ @<Dˢ $>>0ˢ C<.. >Dˢ 10ˢ $Eˢ ..>=#%<.ˢ %>, >?!ˢ >KP +.>B>%Eˢ % B +>Dˢ 0ˢ 0#B>. C<%ˢ <B1#0+ˢ <0Dˢ 0ˢ A>. 1Dˢ 1'ˢ ?>., C>Lˢ #0D>.ˢ % ++%>ˢ ?#$1.D 0<+ 10!ˢ >KC>A+ˢ +1ˢ +@> .ˢ 1J0ˢ B B>D <+>ˢ C@ >'?!ˢ <0Dˢ J@1%%Eˢ #0A.1, D>Dˢ J +@ˢ +@>ˢ <AA<.<+#?ˢ .>F# .>Dˢ '1.ˢ >K+>0D>Dˢ 1A>.<+ 10?ˢ @>ˢ A<0 <.D?ˢ J>.>ˢ >,>0ˢ %1J>.ˢ +@<0ˢ B1?+ˢ 1'ˢ +@>ˢ #.1P A><0ˢ 0<+ 10?ˢ 0ˢ B % +<.Eˢ ?C >0C>!ˢ <?ˢ ?ˢ <AA<.>0+ˢ '.1Bˢ +@>ˢ 0' 0 +>ˢ A<"<?ˢ 1'ˢ ?<$>%%<ˢ +1ˢ <,< %ˢ @>.?>%'ˢ 1'ˢ <%%ˢ '1.> =0ˢ .>?1#.C>?ˢ '1.ˢ +@> .ˢ BA.1,>B>0+ˢ Dˢ +@>ˢ J<.ˢ 1'ˢ .<0<D<!ˢ B<??>?ˢ 1'ˢ B>0ˢ J>.>ˢ $.1#=@+ˢ +1=>+@>.ˢ '<.ˢ =.><+>.ˢ +@<0ˢ @<Dˢ @ +@>.+1ˢ $>>0ˢ H01J0ˢ 0ˢ B1D>Bˢ J<.'<.>ˢ @>Eˢ J>.>ˢ H>A+ˢ 0ˢ +@>ˢ ' >%Dˢ 01+ˢ 10%Eˢ +@.1#=@ˢ %10=ˢ C<BA< =0?!ˢ $#+ˢ '<.ˢ 0+1ˢ +@>ˢ J 0+>.Lˢ <+@ 0=ˢ <%+1=>+@>.ˢ #0A.>C>D>0+>Dˢ @>Eˢ J>.>ˢ B<D>ˢ +1ˢ <C+ˢ 0ˢ C10C>.+Lˢ <0Dˢ +@>ˢ 0#B>.1#?ˢ A>++Eˢ C@ >'?ˢ $.1#=@+ˢ 0ˢ C1BA%>+>ˢ ?#$">C+ 10ˢ +1ˢ 10>ˢ C1BB10ˢ @><D!ˢ J@1?>ˢ A>.?10<%ˢ C@<.<C+>.ˢ >0'1.C>Dˢ +@>ˢ <#+@1. +Eˢ 1'ˢ ?+<+ 10ˢ <?+%E!ˢ +@>Eˢ J>.>ˢ A.1, D>Dˢ J +@ˢ <%%ˢ +@>ˢ .>F# ? +>ˢ B#0 + 10?!ˢ +@.1#=@ˢ +@>ˢ A.1, D>0C>ˢ 1'ˢ ?<P $>%%<!ˢ J@1ˢ $.1#=@+ˢ 0+1ˢ +@>ˢ ?>., C>ˢ +@>ˢ B1?+ˢ ?H %'#%ˢ >0= 0>>.?ˢ '.1Bˢ 1+@>.ˢ C1#0+. >?!ˢ <0Dˢ H>A+ˢ 0ˢ A<Eˢ $1D >?ˢ 1'ˢ B>.C>0<. >?!ˢ <?ˢ +@>ˢ J ??ˢ '1.ˢ >K<BA%>!ˢ .>P A#+>Dˢ +@>ˢ $>?+ˢ D ?C A% 0>Dˢ +.11A?ˢ 1'ˢ +@<+ˢ D<Eˢ 0ˢ +@ ?ˢ <DB .<$%>ˢ ?C@11%ˢ +@>ˢ A<0 ?@ˢ ?1%D >.ˢ J<?ˢ =.<P D#<%%Eˢ +.< 0>Dˢ +1ˢ A<+ >0+ˢ >0D#.<0C>!ˢ '1.+ +#D>!ˢ <0Dˢ +@1.1#=@ˢ ?#$1.D 0<+ 10ˢ Lˢ <0Dˢ +@1?>ˢ C>%>$.<+>Dˢ C<AM

+< 0?' '1. B>D!' J +@' +@<+' 0, 0C $%>' 0'<0+. E!M' J@ C@' 0'
+@>' $>= 00 0=' 1'' +@>' ? K+>>0+@' C>0+#. E' ?A. ><D' +@>'
B % +<. E' '<B>' 1''+@> .' C1#0+. E' 1,>.' <%%' @. ?+>0D1B
+@' <%%' 1#.' ?EBA<+@E' '1.' +@>' C10F#>. 1. ?!' @1JP
>,>. !' +' ?' BA1?? $%>' +1' C10+>BA%<+>' +@>' D>C<E' <0D'
' 0<%' >K+ 0C+ 10' 1'' <' .<C>!' J@1' @<D' B<D>' ?#C@' @ =@'
<D,<0C>?' 0' C , % G<+ 10' <?' +@>' A<0 ?@' .<$?!' J +@P
1#+' <' D>>A' '>>% 0=' 1'' .>=. >+L' +1' ?>>' +@>B' D. ,>0'
'. 1B' +@>' ?+<+>%E' A<%<C>?' .><. >D' $E' +@> .' 1J0' @<0D?!'
J<0D>. 0=' <?' >K %>?' 1,>.' +@>' %<0D?' J@ C@' ?+ %%' $%1?P
?1B>D' J +@' +@>' '. # +?' 1'' +@> .' 0D#?+. E!' <0D' J<?+ 0='
<J<E' #0D>.' A>. ?>C#+ 10!' #0+ %' +@> 0, >. E' 0<B>' <?' <'
0<+ 10' J<?' $%1++>D' 1#+' '. 1B' +@>' B<A' 1'' @ ?+1. E T' +'
B#?+' $>' <DB ++>D!' @1J>, >. !' +@<+' +@>E' @<D' %10=' ? 0C>'
. ><C@>D' +@> .' #+B1?+' % B +' 1'' <D, <0C>B>0+' <?' <'
A>1A%>' @>' ' =@+' ?@>D' 1, >.' +@> .' @ ?+1. E' ?@ 0>?'
'. 1B' D ?+<0+' <=>?L' '1. !' D#. 0=' +@>' %<+>. ' A>. 1D' 1''
+@> .' >K ?+>0C>!' +@>E' <AA><. ' +1' @<, >' .>A1?>D' 0' <'
?+<+>' 1'' +1. A D' %#K#. 1#?' 0D#%=>0C>!' J@ C@' J1#%D'
?>>B' +1' <. =#>' +@<+!' J@>0' C<#?>?' 1'' >K+>. 0<%' >KP
C +>B>0+' J>. >' J +@D. <J0!' +@>' 0@>. >0+' , C>?' 1''+@> .'
?1C <%' 0?+ +#+ 10?' @<D' 0C<A<C +<+>D' +@>B' '1.' +@>'
'#. +@>. ' A. 1D#C+ 10' 1'' >KC>%%>0C>' 0' +@ ?' BA1+>0+'
C10D + 10!' +' J<?' J ?>%E' 1. D>. >D' +@<+' +@> .' +>.. +1. E'
?@1#%D' $>' 1CC#A >D' $E' <' A>1A%>' J@1?>' . >% = 10' <0D'
B1. >' % $>. <%' '1. B' 1''=1, >. 0B>0+!' @1J>, >. ' '. >F#>0+%E

Q' A' 0,(%)' 5 ( )5%) ' 0' 1%)C' ') % ,) ' %)5' 3 A%3'
A' 3%), A' '$)%4 'BA C' , ' ( ) ,)$ ' 3$' $3' %' 3 ,'
' ,)2$, A' A' A 3' 0' ; ,) ' A%' 00 (',)' A , ' 1 2$ '
%,)' ' A' 5 ,(, $' %4 5 '; . C' ,5%C!' 5 %G%') ,'
0' A , ' %)(' ( ) ,)$ 5' 0 '$ 5!' 5 ' : %)%5%' 0 ! /!

B ?#0D>.?+11D 1.' A>.,>.+>D! F#<% '>D +@>B '1.' <DP ,<0C 0=' ?+ %% @ =@>.' +@>' 0+>.>?+?' 1'' @#B<0 +E

+' J %% 01+' $>' <B ??' +1' +>.B 0<+>' +@>' 0<..<+ ,>' 1'' +@>' J<.' 1'' .<0<D<' J +@' ?1B>' 01+ C>' 1''+@>' '<+>' 1'' 1D. =1'510C>' D>' >10!' <.F# ?M #H>' 1'' <D GL' '1.' @>' B<E' $>' .>=<.D>D' 0' <' ?A>C <%' B<00>.' <?' +@>' @>.1' 1'' +!' @<, 0=' ?+.#CH' +@>' '.?+' ?+.1H>' $E' +@>' ?#.A. ?>' 1'' %@<B<!' <0D' J +0>??>D' >,>.E' C<BA< =0' + %%' +@>' ?#.P .>0D>.' 1'' .<0<D<' ' C .C#B?+<0+ <%' <CC1#0+' 1'' @ ?' %<++>.' B1B>0+?' ?' <' $.D>D' $E' +@>' A>0' 1''@ ?' J1.+@E' C1#0+.EB<0' +@>' 0D<%#? <0' C#.<+>' D>' %1?' 5<%<C 1?' @>' =<%%<0+' B<.F# ?' ?#.,,>D&+@>' C%1?>' 1'' +@>' J<.' 10%E' <' ?@1.+' + B>!' +>.B 0<+ 0=' @ ?' D<E?' <+' @ ?' B<0P ?10' 0' >,%%>!' 10' +@>' 74+@' 1'' #=#?+' 6:7!' 1'' <' D?1.D>.' $.1#=@+' 10' $E' '<+ =#>' <0D' 0C>??<0+' >KA1?#.>' >' J<?' 0' +@>' '1.+EM0 0+@' E><.' 1'' @ ?' <=>!' <0D!' <%+@1#=@' +J C>' B<..>D!' %>'+' 01' %>= + P B<+>' ??#>' 0' @ ?' A>.?10!' @>' J<?' <$1#+' +@>' B DD%>' ?+<+#.>!' 1''<' C1BA<C+' ?EB B>+. C<%' '.<B>!' <' '<.' C1BP A%>K 10!' J +@' % =@+' @< .!' <0D' J@ ?H>.?' 0C% 0 0=' +1' .>D' >' J<?' <0' >KC>%%>0+' @1.?>B<0!' <0D' J>%%' ?H %%>D' 0D>>D' 0' B1?+' 1''+@>' >K>.C ?>?' 1''C@ ,<%.E' >' @<D' +@>' .<.>' B>. +' 1''C1B$ 0 0=' ?<=<C +E' J +@' 0+.>A D +E' 0' <C+ 10' >' J<?' ?1B>J@<+' BA<+ >0+!' <0D' ?%1J' +1' '1.= ,>L' $#+' @>' J<?' '.<0H' <0D' =>0>.1#?!' <' J<.B' '.>0D!' <0D' <' H 0D' B<?+>.' +1' @ ?' ,<??<%? T

Q' :%,)5 G'5 '*% 4%+% ')% ' 1)(1)' 0' A' ,A'B% ' !' %) 'H ! A'0, 1'0,)5' 0' A' %2$,' 0')' 8) ,2$' 5' :$G1%)' *%5,G' 5, 5')' A' I'A' 0' $; $@' 0' 5,)% ,5),%' A'%); '$ ' A' %1 '5%C'B, A'A' %; (,)') 1C'%)5' ,)('A'(1; !

>' J<?' ?+. C+' O' @ ?' 1$?>.,<OC>' 1'' +% >' C<+@1% C' J1.?@ A!' A#OC+ % 1#?' O' H>>A O=' <%%' +@>' C@#.C@' '>?P + ,<%?!' <OD' O' >O'1.C O=' +@> .' 1$?>.,<OC>' +@.1#=@1#+' @ ?' D1B< O?L' <OD!' O' J<.!' @>' J<?' <' B1?+' D>,1#+' C@<BA 10' 1'' +@>' .= O ' >' J<?' <B$ + 1#?' 1'' <CP F# ? + 1O?!' $#+' %<, ?@' 1'' >KA>OD +#.>!' >?A>C <%%E' O' +@>' >B$>%% ?@B>O+' <OD' '1.+ ' C<+ 10' 1'' @ ?' +1J O?' <OD' C<?+%>?L' ?A>OD O=' 1O' %C<%<' D>' #<D< .<!' ; >.>?!' <OD' %<O ?!' +@>' >01.B1#?' ?#B' 1'' 9! ! ' B<.<,>D ?' 1' +@>' %<D >?' @>' J<?' C1#.+>1#?!' <?' $>C<B>' <' +.#>' HO =@+ ' +' @ ?' D><+@!' +@>' H O=' <OD' F#>>O' J +@' +@>' J@1%>' C1#.+' J>O+' O+1' B1#.O O=!' Q' '1.' @>' J<?' <' B#C@M%1,>D' C<,<% >.!R' ?<E?' +@>' C#.<+>!' Q' <OD' J<?' >?P +>>B>D' % H>' +@>' D' $1+@' $E' '. >OD' <OD' '1>!' <OD' O1' 11.' D#.?+' <$ D>' O' +@<+' F#<.+>.' 1'' +@>' ' >%D' J@>.>' @ ?' $<OO>.' J<?' D ?A%<E>D R

?' $1DE!' <'+>.' %E O=' O' ?+<+>' '1.' ?>,>.<%' D<E?' O' @ ?' A<%<C>' <+' >, %%>!' J +@' +@>' +.#?+E' ?J1.D' $E' @ ?' ? D>' J +@' J@ C@' @>' @<D' '1#=@+' <%%' @ ?' $<++%>?!' J<?' $1.O>' O' ?1%>BO' A.1C>?? 10' $E' O =@+' +@.1#=@' +@>' ?+.>>+?' 1'' +@>' C +E!' J@ C@' J<?' >,>.EJ@>.>' ' %%>D' J +@' +@>' D>>A>?+' %<B>O+<+ 10!' <OD' ' O<%%E' D>A1? +>D' O' +@>' =.><+' C@<A>%' 1'' +@>' #=#?+ O>' C@#.C@!' O' +@>' +1B$' (' @ ?' <OC>?+A.?' >O' 11. ?@' $<OO>.?!' J@ C@' @>' @<D' +<H>O' O' $<++%>' J +@' +@>' O' D>%' $>'1.>' +@>' J<.' 1'' .<O<D<!' J>.>' $1.O>' <%10=' O' @ ?' '#O>.<%!' Q' <OD' ?+ %%' J<,>' 1,>.' @ ?' ?>A#%C@.>!R' ?<E?' >.O<%D>G!' W H>>A O=' <% ,>' +@>' B>B1.E' 1'' @ ?' >KA%1 +?!' <?' #ODE O=' <?' @ ?' ?1#% R' @>' $<OO>.?' @<,>' %10=' ? OC>' B1#%D>.>D' O+1' D#?+L' +@>' ,>.E' +1B$' J@ C@' C10+< O>D' @ ?' <?@>?' @<?

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$>>0 ?<C. %>= 1#?%E D>B 1% ?@>DL $#+ +@> '<B> 1'
+@> @>.1 J %% ?#., > <? %10= <? <0E +@ 0= % H> .>P
?A>C+ '1. ,<%1#.! C1#.+>?E! #0$%>B ?@>D @101#.! 1.
<0E 1+@>. <++. $#+> 1' C@ ,<%.E! ?@<%% $> '1#0D 0
A< 0 T

Q N$),'%)% 5 .,% BA A%5 1% ,5B,A) 3! D ! J 1%5G8, 5 0A @,) 1)! *%5,G B% $4;
C ! (! (,.! 2$) C %)) F 5 4C A 3%;
A 1% 2$, 0 A ,'); A ! (.0A
,1% 5%$'A 4C%) 4 3%; 0 1 BA,(A, A%5 4)5 %(A 5
), A %5C BA % 0 1 5 A,'A ,) 8) C E!K ,1 %)5 ( );
( )) F,) ! 8 B% $((5 5 ,5 %4 % ',.)%%) 2$,;
,) A, , %)5 % 4C A .%) ' A B, A A , 0
3 1, ,) 0 5,)%)5%)5 %; $@ 0 (A 0%1, C 0
4 % 4C) 5,')(5)(5)!
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B% ,)5 1%5G ($% 0 % %(, ! 8 B% %
)%,. 0 $) ,))5%33 % A%. (,. 5A, % C
5$(%,),15 A (% 0A, ' %)50% A %') % C 0A%3%(BA (1 1)5%,) 0 %+$.), %C,) ,, ,(% B , ,) ' 5
A,1 % ,) ,0 %((5,) ' A, B) %(($) P (5A0 .)
0A, ,1 ,) A F)5 5 %)5 '$%0 1 0(A A,(! 0
%51, ,) 5 A B% 1%5 (A%3%,) G% %(A4, A 3 0
., %)5 ($% 0 % %(, %))5% $,%) B))3 0%
0 1 ., BA A 0, 5A, ((,% ,(% 0$)(,) B, A(5,
0 1 DII 6 <%BA,(A ,1 % B 0,)5) % 1) ,) 0
A,1 A 3 4%4C (5A, ,0 B, A A, %4 $!
1%5G A%5 %13 33 F1, , 0 %((% $% ,)0 1%,)
%,. A , B% ,)(A ,. 5 , B ,) A

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B) B) C> ,F (%) ! ,) $(A 3$ B, A A % ,%) , ,(A% #$%5 , 5) A , % %) @ , Y %1) ' A 4 3,(% ‖3 5$(,) 0 A %' !Z %) % ,) 0 A, B @ A% ( ) C‖ %33 % 5 % $ 14 ' 0 1 A 3) 0 *! ! 9 ,) ,) ' B ,,(A , 1$(A (1 1)5 5 4C A : 1%) (, ,(! ! . ,) 'K % 3$4 ,(% ,) A *A),(0 : %) %5% ?,% $3 5 5 % 0$ A) (, C 0 3 C %)5 $)0 $)% C 0 1 0 A, C! 8 A% 0$ C %.%, 5 A,1 0 0 % A 3,(; $ 2$ %)5 %), 1% ,) ' 1 . 1) 0 A, 1%) ,(%< %)5 A %5 BA B, %@ A $4 (13% A, (A),(B, A A 3) 1 3 %,(%)5 , %)% % , . B, A B , A A% 4) 5$(5 0 1 A, ,(%((($ %(C 4C A 3 ,(% % 3 (0 A, $4+ (! A 0,(, , $ %)5 1%) ,(5 0 A, B @ A%)%4 5 A,1 1%@ , A 1 5,$1 0 0 (,) ' 1 . , . ,5 C A 0 % ,) ' 3,),) %)5 (A,1 ,(% 0%)(, 0 A %' BA, A A% , $1 ,)% 5 A 3,($ B, A A 5 %1% ,(4 , ,%)(. 0 ($,) ' 5), 5 4 A, C!

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2 3 ‘ >.D 0<0D‘ <0D‘ ?<$>%%<‘ J>.>‘ <+‘ <0+<‘ !‘ +@>‘ C<A +#%<+ 10‘ J<?‘ ? =0>D‘ +@<+‘ 1A>0>D‘ +@>‘ J<E‘ +1‘ <0!‘>K+>0+‘ 1’‘>BA .>!‘ C1BA<.>D‘ J +@‘ J@ C@‘ +@> .‘ .>P C>0+‘ C10F#>?+?!‘ <0D‘ 0D>>D‘ <%%‘ +@> .‘RA.>?>0+‘ D1B P 0 10?!‘ J>.>‘ 0? =0 ' C<0+‘ @>‘ >K+.<1.D 0<.E‘ 0+>%P %>C+#<%‘ <C+ , +E‘ 1’‘ +@>‘ #.1A><0?‘ 0‘ +@>‘ ' '+>>0+@‘ C>0+#.E!‘ <'+>.‘ +@>‘ +1.A1.‘ 1’‘ <=>?!‘ C<.. >D‘ +@>B‘ '1.P J<.D‘ +1‘ @ =@‘ <D,<0C>B>0+‘ 0‘ <%B1?+‘ >,>.E‘ D>A<.+P B>0+‘ 1’‘ ?C >0C>!‘ $#+‘ >?A>C <%%E‘ 0<#+ C<%!‘ J@1?>‘ ?#.P A. ? 0=‘ .>?#%+?‘ @<,>‘ <CF# .>D‘ '1.‘ +@>‘ <=>‘ +@>‘ =%1.E‘ 1’‘ $> 0=‘ D>? =0<+>D‘ <?‘ A>C#% <.%E‘ +@<+‘ 1’‘ B<. + B>‘ D ?P C1,>.E‘ @ ?‘ J<?‘ >B 0>0+%E‘ '<,1#.>D‘ $E‘ +@>‘ A1% + P C<%‘ C10D + 10‘ 1’‘ B1D>.0‘ #.1A>‘ 0D>.‘ +@>‘ 1B<0‘ >BA .>‘ +@>‘ +.<'% C‘ J +@‘ +@>‘ <?+‘ 0<+#.<%%E‘ C>0+.>D‘ 0‘ 1B>!‘ +@>‘ C1BB>.C <%‘ C<A +<%‘ 1’‘ +@>‘ >?+‘ '+>.‘ +% >‘ D ?B>B$>.B>0+‘ 1’‘ +@>‘ >BA .>!‘ +‘ C10+ 0#>D‘ +1‘ $>‘ 10D#C+>D‘ A. 0C A<%%E‘ +@.1#=@‘ +@>‘ C@<00>%‘ 1’‘ +@>
‘ ‘ g

+<% <0‘ A1.+?!‘ J@>0C>‘ +‘ J<?‘ D ''#?>D‘ 1,>.‘ +@>‘ .>P B1+>.‘ .>= 10?‘ 1''‘ @. ?+>0D1B‘ ‘ $#+‘ +@>?>‘ C1#0+. >?!‘ J@ C@‘ @<D‘ 01J‘ . ?>0‘ '.1B‘ +@>‘ .<0H‘ 1''‘ ?#$1.D 0<+>‘ A.1, 0C>?‘ +1‘ +@<+‘ 1''‘ ?>A<.<+>‘ 0D>A>0D>0+‘ ?+<+>?!‘ , >J>D‘ J +@‘ "><%1#?E‘ +@ ?‘ B101A1%E‘ 1''‘ +@>‘ +<% <0‘ = + >?!‘ $E‘ B><0?‘ 1''‘ J@ C@‘ +@>?>‘ %<++>.‘ J>.>‘ .<A D%E‘ <D,<0C 0=‘ $>E10D‘ +@>B‘ 0‘ A1J>.‘ <0D‘ 1A#%>0C>U‘ @ ?‘ J<?‘ >?A>C <%%E‘ +@>‘ C<?>‘ J +@‘ 51.+#=<%‘ <0D‘ <?P + %>!T‘ J@ C@!‘ A%<C>D‘ 10‘ +@>‘ .>B1+>‘ '.10+ >.?‘ 1''‘ +@>‘ #.1A><0‘ C10+ 0>0+!‘ J>.>‘ '<.‘ .>B1,>D‘ '.1B‘ +@>‘ = ><+‘ .1#+>?‘ 1''‘ ? <+ C‘ 0+>.C1#.?>L‘ J@ %>‘ +@ ?‘ D ?<D,<0P +<=>‘ J<?‘ 01+‘ C1BA>0?<+>D‘ $E‘ ?#C@‘ <0‘ >K+>0+‘ 1''+>.. P +1.E‘ <?‘ ?>C#.>D‘ C10? D>.<+ 10‘ +1‘ ?1B>‘ 1+@>.‘ 1''‘ +@>‘ #.1A><0‘ ?+<+>?!‘ >F#<%%E‘ #0'<,1#.<$%E‘ ? +#<+>D‘ '1.‘ C1BB>.C <%‘ A#.A1?>?‘ J +@‘ +@>B?>%,>?‘ @#?‘ C .P C#B?+<0C>D!‘ +@>‘ +J1‘ 0<+ 10?‘ 1''‘ <?+ %>‘ <0D‘ 51.P +#=<%‘ J>.>‘ 0<+#.<%%E‘ %>''‘ +1‘ +#.0‘ +@> .‘ >E>?‘ 10‘ +@>‘ =.><+‘ 1C><0‘ J@ C@‘ J<?@>D‘ +@> .‘ J>?+>.0‘ $1.D>.?L‘ <0D‘ +1‘ ?>>H‘ 0‘ +?‘ @ +@>.+1‘ #0>KA%1.>D‘ .>C>??>?‘ '1.‘ 0>J‘ D1B< 0?!‘ <0D!‘ ''‘ A1?? $%>!‘ ?+. H>‘ 1#+‘ ?1B>‘ #0D ?C1,>.>D‘ +.<CH‘ +1J<.D?‘ +@>‘ 1A#%>0+‘ .>= 10?‘ 1''‘ +@>‘ <?+

@>‘ ?A . +‘ 1''‘ B<. + B>‘ >0+>.A. ?>‘ J<?‘ '1B>0+>D!‘ <0D‘ =.><+%E‘ '<C % +<+>D‘ 0‘ +?‘ 1A>.<+ 10!‘ $E‘ +@>‘ 0,>0P + 10‘ 1''‘ +@>‘ <?+.1%<$>!‘ <0D‘ +@>‘ BA1.+<0+‘ D ?C1,>.E‘ 1''‘ +@>‘ A1%<. +E‘ 1''‘ +@>‘ B<=0>+!‘ J@1?>‘ ' .?+‘ <AA% C<+ 10‘ +1‘ +@>‘ A#.A1?>?‘ 1''‘ 0<, =<+ 10‘ 10‘ <0‘ >K+>0D>D‘ ?C<%>‘ B<E

‘ !'&()‘ (!!'45/! '4' () ''‘)&45/ 6 . . / '&/0‘ 45!(%&5545/ 6')4')/.‘ ')‘ /+4/)0 ,/ *(6‘ (%!05)& 8(!4 (‘ '!*/ ()''‘ 6/!*/ 9455 45/ /,')4 ')‘ .45/‘ // '86'):‘ /6‘ 04(!*'0 !/6(4/ !/&()0 (‘ 45/‘ '04 .%!7 ./ '!*/ ()''‘ 8'00 6

$>' .>'>..>D' +1' +@>' ' '+>>0+@' C>0+#.E T' @>' 51.+#P =#>?>' J>.>' +@>' ' .?+' +1' >0+>.' 10' +@>' $. %% <0+' A<+@' 1'' 0<#+ C<%' D ?C1,>.E!' J@ C@' +@>E' A#.?#>D' #0D>.' +@>' 0'<0+' 10' >0.E' J +@' ?#C@' <C+ , +E!' +@<+!' $>'1.>' +@>' B DD%>' 1'' +@>' ' '+>>0+@' C>0+#.E!' +@>E' @<D' A>0>P +.<+>D' <?' '<.' <?' <A>' D>' >.D!' D1#$% 0=' B<0E' <' '><.M' ' D' @><D%<0D' J@ C@' @<D' ?@#+' 0' +@>' + B D' 0<, =<+1.' 1'' '1.B>.' D<E?' L' #0+ %' <+' %>0=+@!' 0' 64 !' +@>E' D>P ?C. >D' +@>' %1'+E' A.1B10+1.E' J@ C@' +>. B 0<+>?' ' T C<' 10' +@>' ?1#+@!' <0D' J@ C@!' @< %>D' $E' S 0=' /1@0' !' #0D>.' J@1B' +' J<?' D ?C1,>.>D!' <?' +@>' @<.$ 0=>.' 1'' +@>' %10=M?1#=@+' A<??<=>' +1' +@>' <?+!' .>C> ,>D' +@>' C@>>. 0=' <AA>%%<+ 10' 1'' +@>' <A>' 1'' 11D' 1A>

@>' A<0 <.D?!' 0' +@>' B><0' J@ %>!' D D' 01+' %<0MX

ÞbL' ' ($)(,' 0' 1% A 1%,;' 0 1' *% 5,)%' E, ,' BA' 5, 5',)' (,%) ',)' A' ($ ' 0'? A)' !' 0' DD' %)5' $ %,) ' A,' 4C' . ;' $'%' 0, ' 5 ., 5' A' %33,;' %' ,1 %' 0)(' ' A' (%,)' 0' A' %)(,)' % %4' %$ A ' 0' A' %1' ( ) $ C!' ')%.,'%,)' A$' %00 5,)'' ' *%31%)C' 0,)5') ') ,(' 0', A' 1%,) ' A') ,%'%5.%); $ ' 4C' A' *% , ,%)')%.,'% ' %' '%33 %,),)'' ' A' 1 5 1' % , ' A%)' D !' ' B%') ' 2$%5 %) !' A' 5, (. C' 0' A' $) ,' ( ) ,5 %4 C' % ' ,)' A' 3 %, C' 0' A') 5 ' BA,(A' 0,0) A' ( ) $ C' A%' A' >' E$ '%' %5, ,)' % ,') 5' ' A' $'$ ' . C%' ' 1 ,)'' ' 1%0, %., ' :, +%'%)5' BA,(A' , ' '$,5%)(' .) $ 5' ' 2$,' 4)' A%' %)(,) 5' B, A; A' 5, %) %)' %)5' 0,(%)' $' (13 ' ,' (% C' 3 . 5' ' (% '%)5' F)5' A , ')%.,'%; A%. ' ((($ 5' 1 ' A%)' %' ( ); ,)' ' %5 , %'%)5' A' G ! $ C' % , ! , %4 (A,' BA' ' %.% ' * ((,)' 5' ,) . ,'% ' A' 1% ' B, A' A, ' E,%' ' C' ($4 ,1,) ' 5' ' $ $%' 15, ,)' 3% ,)'' 4C' A' 3%) ' 1!,!') !' (!FFF,, ' 5 $4 0$' 0)(' 0' :$, ' 5' J' , %4 (A,' % $ % %V' .,) ' BA ' %' '%)5' 3)%' ,%)%' 1!' ,.!' 33!' / ' /D! J' ,5), C' .)' % ' ( ) 5' *%31%)C' 1 ,%' 5' % (; %(' A' 0%1, ,%' $ ' 0' A')%' 1!' ,,,!' !',!' (! ,.! J '' (A' 1%') ,( ) 5 ' %' 0%' 4%(@' %' . $,) '5 ' % $ 3 ' 1!' ,!' A' 0, ' A% 0' 0' A' A,) A' 33!' 6I J < 5!' I D! ( ) $ C' 4C' %' 3 ,)) ' 3% %'

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=# ?@ 0 +@> C<.>>. 1 B<. + B > >0+>.A. ?>M >.+< 0 <D,>0+#.>.? '.1B +@> 01.+@>.0 A.1, 0C>? 1 ?C<E <0D # A#?C1<! 0 : ! @<D B<D> +@>B?>%,>? B<?P +>.? 1 10> 1 +@> ?B<%%>?+ 1 +@> =.1#A 1 ?%<0D?! ?#AA1?>D +1 $> +@> 1.+#0<+> ?%>? 1 +@> <0C >0+?! ? 0C> H01J0 <? +@> <0<. >? +@>. A. ,<+> <D,>0P +#.>.? '.1B %<'>, %%> >K+>0D>D +@> . C10F#>?+? 1,>. +@>?> ?%<0D? 0 +@> $>= 00 0=' 1 +@> '1%%1J 0=' C>0P +#.E @>?>J>.> C1BA%>+>D 0 $>@<%1 +@>C.1J0 #0D>. >.D 0<0D<0D ?<$>%%<! J@1>F# AA>D ?>,>.<% '%>>+? '1. +@> . .>D#C+ 10! J@ C@ <+ %>0=+@ +>. B 0<+>D 0 6:8 J +@ +@<+ 1 >0>. ''> T .1B +@> C1BP B>0C>B>0+ 1 +@> . .> =0! >.D 0<0D<0D ?<$>%%< @<D ?@1J0 <0 ><.0>?+ ?1% C +#D> '1. +@> >0C1#.<=>P B>0+ 1 C1BB>.C> <0D 0<#+ C<% ?C >0C>! <? ? >, 0C>D $UU ,<. >+E 1 .>=#%<+ 10? J@ C@! @1J>,>. BA>.P '>C+&?1B > 1 +@>B! '.1B +@> B ?C10C>A+ 10 1 +@> +.#> A. 0C A%>? 1 +.<D> < +@<+ D<E! <.> ?#'' C >0+%E 0D C<+ ,> 1 +@> D ?A1?+ 10? 1 +@> =1,>.0B>0+ &ZL 0D>. +@>B! <0D 0D>>D #0" >. +@> . A.>D>C>??1.? <?

a

L $ 0 A , %)5 B) ,00 %0 %, ,$5C ; ( )2$ 5) 4 A% 0 0 3 ,.% ! %) (0 1 A)%,. ! ,T %5.) $ (A, 0C 0 1)5%;)% 5 G 3 3) A % ( ); $,% 4 0 A %((,) 0 2$ DH6! % %G% ( ) 5,)%)5 %)5 %4 % %)5 % 2$,% 5 3%,,% 1! ,! 33! $)5 A , ,')B A 5 % D/ J DH! J $ '% *) _ 5 $ A 3 3 C 0 %) 4 *% ,; C *% ,(! 33! ! D E ,%) 0 1, C)%1 5 %G%! A J 1% 5 G 8, 5 C ll . ,')) %( ) ,5 %4 ! (! F,.! F.! F.,! (FFF,,, % 1%1) 0 1 ., ,) DI J %.% * ((,) 5 E,> BA,(A 45 5 A ' %, %)5 %' 1! ,!) ! (> FF.,,,! 0 *%)% C)4 A% 0 0 A (B)< 1)'' A 3 ., ,) 0 %)5%) A ,) DH BA,(A 0; A . ,'))%(5 3 ., $ Q 0 (5Q A 5$(,) 0 % 1% A 3) 5% 1%C4 ') >

'<.ʻ $<CHʻ <?ʻ >0.Eʻ !ʻ <ʻ C10?D>.<$%>ʻ +.<'% Cʻ @<Dʻ $>>0ʻ C<..>Dʻ 10ʻ J +@ʻ +@>ʻ J>?+>.0ʻ C1<?+ʻ 1''ʻ '.C<!ʻ '.1Bʻ J@C@ʻ =1%Dʻ D#?+ʻ <0Dʻ ?%<,>?ʻ J>.>ʻ BA1.+>Dʻ 0+1ʻ +@>ʻ C +Eʻ 1''ʻ >, %%>ʻ @>ʻ <00<%$+ʻ 1''ʻ+@<+ʻ C +Eʻ 01+ C>?ʻ +@>ʻ .>A><+>Dʻ 0+>.'>.>0C>ʻ 1''ʻ ?<$>%%<ʻ 0ʻ $>@<%''ʻ 1''ʻ +@>?>ʻ #0'1.+#0<+>ʻ $> 0=?!ʻ $Eʻ 1.D 0<0C>?ʻ +>0D 0=ʻ +1ʻ ?>C#.>ʻ +@>Bʻ <ʻ B1.>ʻ >F#<%ʻ A.1+>C+ 10ʻ 1''ʻ +@>ʻ %<J?!ʻ 1.ʻ 1A>0 0=ʻ ?#C@ʻ ?1C <%ʻ 0D#%=>0C>?ʻ <?ʻ B =@+ʻ B + =<+>ʻ +@>ʻ @<.D?@ A?ʻ 1''ʻ+@> .ʻ C10D + 10ʻ ʻ B ?#0D>.?+<0DMʻ 0=ʻ =.<D#<%%Eʻ <.1?>ʻ $>+J>>0ʻ +@>ʻ ?#$">C+?ʻ 1''ʻ <?+ %>ʻ <0Dʻ 51.+#=<%ʻ 0ʻ .>%<+ 10ʻ +1ʻ +@> .ʻ .>?A>C+ ,>ʻ . =@+?ʻ 1''ʻ D ?C1,>.Eʻ <0Dʻ C1B B>.C>ʻ 10ʻ +@>ʻ '.C<0ʻ C1<?+!ʻ `.@ C@ʻ ?>>B>Dʻ +1ʻ A.1B ?>ʻ <ʻ '.# +'#%ʻ ?1#.C>ʻ 1''ʻ C1%% ? 10ʻ $>P +J>>0ʻ @>ʻ +J1ʻ C.1J0?Lʻ $#+ʻ J@C@ʻ J<?ʻ @<AA %Eʻ <DP "#?+>Dʻ $Eʻ <0ʻ <.+C%>ʻ 0ʻ +@>ʻ +.><+Eʻ 1''ʻ 69:!ʻ +@<+ʻ +>.P B 0<+>Dʻ +@>ʻ <.ʻ 1''+@>ʻ #CC>?? 10ʻ Eʻ +@ ?ʻ ''!J<?ʻ ?>++%>D!ʻ +@<+ʻ +@>ʻ . =@+ʻ 1''+.<'% Cʻ <0Dʻ 1''D ?C1,>.Eʻ 10ʻ +@>ʻ J>?+>.0ʻ C1<?+ʻ 1''ʻ '.C<ʻ ?@1#%Dʻ $>ʻ >KC%#? ,>%Eʻ .>P ?>.,>Dʻ +1ʻ +@>ʻ 51.+#=#>?>!ʻ J@1ʻ 0ʻ +@> .ʻ +#.0ʻ ?% 1#%Dʻ .'>? =0ʻ <%%ʻ C%< B?ʻ 10 [@&ʻ <0<.>?ʻ +1ʻ +@>ʻ C.1J0ʻ 1''ʻ <?+ %>ʻ @>ʻ A<0 <ʻ'>ʻ +@#?ʻ >KC%#D>Dʻ '.1Bʻ '#.+@>.ʻ A.1=.>??ʻ +1ʻ +@>ʻ ?1#+@!ʻ ?>>B>Dʻ +1ʻ @<,>ʻ 01ʻ 1+@>.ʻ 1A>0P 0=ʻ %>'+ʻ '1.ʻ 0<,<%ʻ <D,>0+#.>ʻ +@<0ʻ +@>ʻ @ +@>.+1ʻ #0M

5ʻ A ʻ0 ʻ '$%,)''ʻ A ʻ(,)ʻ 5ʻ)ʻ A ʻ(% <%)5ʻ%)ʻ 5,; !%)5ʻ B ,'A ʻ+ʻ0 ʻ 3),)''ʻ%ʻ0 ʻ)%)(ʻ 0ʻ A ʻ. Cʻ % ʻC % ʻ ; ! %5ʻ4 B)ʻ*% , ʻ%)5ʻ %; 2$,,)''ʻ0 ,') ʻ ʻ %@ʻ A ,ʻ ')ʻ4 0 ʻ ($,Cʻ ʻ:) ʻ $)ʻ(%' ʻ,)ʻ A ʻ3 5$(ʻ %)5ʻ E),%)ʻ %5,)''ʻ. < 0ʻ A ʻ($) C!ʻ ʻA ʻ%Bʻ 0 ʻ %0ʻ( )5$(ʻ ʻ1%,) ʻ%)5ʻ %ʻ F %(5ʻ0 1ʻ A ʻ 5)%)>ʻ W,0, A 1)<ʻ0 ʻ3,., ' ʻ ʻA ʻ O%ʻ % ʻ %)5ʻ A ʻ.%, $ʻ %1)ʻ 0ʻ % <ʻ0 ʻ3 A,4,; 3$4,(%(A,. ʻ,)ʻ 1!ʻ 5ʻ ,)''ʻA0(3$)5 ʻ 0ʻ. ʻB (@; (%5!ʻ5 8, ʻ 1!ʻ.,!ʻ $!F,!

+.<,>%%>D' .>= 10?' 1'' +@>' =.><+' J>?+>.0' 1C><0 ' 1.P +#0<+>%E!' <+' +@ ?' "#0C+#.>L' <0' 0D , D#<%' <AA><.>D' <B10=' +@>B!' 0' +@>' A>.?10' 1'' @. ?+1A@>.' 1%#B$#?!' >0D1J>D' J +@' C<A<C +E' '1.' ?+ B#%<+ 0=' +% >B' +1' +@ ?' @>.1 C' >0+>.A. ?>!' <0D' C10D#C+ 0=' +' +1' <' =%1. 1#?' ??#> T

@ ?' >K+.<1.D 0<.E' B<0' J<?' <' 0<+ ,>' 1'' >01<!' 1'' @#B$%>' A<.>0+<=>!' +@1#=@' A>.@<A?' @101#.<$%>' D>P ?C>0+ Z' >' J<?' 0?+.#C+>D' 0' @ ?' ><.%E' E1#+@' <+' 5<, <!' J@>.>' @>' <CF# .>D' <' ?+.10=' .>% ?@' '1.' +@>' B<+@>B<+ C<%' ?C >0C>?!' 0' J@ C@' @>' ?#$?>F#>0+%E' >KC>%%>D' +' +@>' <=>' 1'' '1#.+>>0!' @>' >0=<=>D' 0' <' ?><'<. 0=' % '>!' J@ C@' @>' '1%%1J>D' J +@' % ++%>' 0+>.P B ?? 10' + %%' 69 L' J@>0!' <+' A.1$<$%E' % ++%>' B1.>

Q' N$),'%')% '5' ., %' 33!' / ' /D!' HI!' J'N$,%')% '5' %')' 1!',.!' ,4!' ==!' (!'===!' FFF,.!J %.% ' * ((,)' 5' E,%' ' 1!' ,!') 5!' (!'FF,!'FF,.!' J' >' % !' 8, !' 5K 3%') ' 1!' .,,!' 3!' 6DI!

' 3 1' 8, !' 1!' 0' * 14')'!' %) !' 3!' D!J')% '%' ' 4$' :)$),>' 4$' %3!' $% , ' $1' %,(' 1!'FF,.!'3!'6I6!

', '. C') % C%' 5' A%' A' 0% A' 0' * 14' F (, 5' A' (%0' 0%'B (%5' 'B %.>' Z ! A' %51,%K')' 5,;)%)5' %0 ' 1' 3 ($%,)')' A' ') % 'C' 0' A, ', $, $' 3%)' ( )($5' B,A' 1%@; ,)'' A%' %0 ' % ' %') 4' 5 ; ( )' B $5' ( )0 ' ' $ ')

5 6' 45')' 4(5',/ 08!%)& !(6 0%*5 ' '45/!', ' 85 (0(85< *'' 0/)4 6/)4). *'4)&8!/44:' 04!()&: 45'4 5/ 5'.')(&!/'4 ')*/04!:4(=('04 (' /!.)')'.).0 0(6/45)& /+4!/6/ :6:0< 4/!(%0')' 4;8*'')'50 '< 45/!0)'6/ (' (%6=%0 0&)< :)& .(,/')'4(?/)'(50=/<)&(!.')/'4(@*'!!:45/ (,/ =!')*5 ')' (' (' ='8406(,/! 45/ (*/')' ?/ ('50 .(,/'4(./)(4/ 45/ 8/'*/ ')' %) ()' (' 45/ 5/'45/)' 8/(8/ 945 45/ *5%!*5 '4/!45/:5':=//)05%4 %8)'45/ '!? (' .'!?)/00 ').' *()%0()A' /!)')'.((,(6 04'./' 6!')4/'*'8' '8%.' '!*'' 04'$! 64,(0./ '0 5.' ** ./)4'/0'4(6' -')4' (' / ', ' (%6=''8' %!'4(!' *!84' 4' '4(6'++ 8'3B3

+@OOʻ +@ .+Eʻ E><.?ʻ 1'ʻ<=>!Tʻ @>ʻ%<OD>Dʻ 0ʻ 51.+#=<%!ʻ +@>ʻ C1#0+.Eʻ +1ʻ J@ C@ʻ <D,>0+ # 1#?ʻ ?A . +?ʻ '.1Bʻ <%%ʻ A<.+?ʻ 1'ʻ +@>ʻ J1.%Dʻ +@>0ʻ .>?1.+>D!ʻ <?ʻ +@>ʻ =.><+ʻ +@><+.>ʻ 1'ʻ B<. + B>ʻ>0+>.A. ?>ʻ '+>.ʻ@ ?ʻ <.. ,<%!ʻ @>ʻ C10+ 0#>Dʻ +1ʻ B<H>ʻ ,1E<=>?ʻ +1ʻ +@>ʻ +@>0ʻ H01J0ʻ A<.+?ʻ 1'ʻ +@>ʻ J1.%D!ʻ <OD!ʻ J@>0ʻ 10ʻ ?@1.>!ʻ 1CC#A >Dʻ @ B?>%'ʻ J +@ʻ +@>ʻ C10?+.#C+ 10ʻ <0Dʻ ?<%>ʻ 1'ʻC@<.+?ʻ <ODʻ B<A?Lʻ J@ %>ʻ @ ?ʻ =>1=.<A@ C<%ʻ .>?><.C@>?ʻ J>.>ʻ C10? D>.<$%Eʻ< D>Dʻ $Eʻ +@>ʻ A1??>?? 10ʻ 1'ʻ A<A>.?ʻ $>%10= 0=ʻ +1ʻ <0ʻ >B 0>0+ʻ 51.+#=#>?>ʻ 0<, =<+1.!ʻ <ʻ D>C><?>Dʻ .>%<+ ,>ʻ 1'ʻ@ ?ʻ J '>ʻ @#?ʻ ?+1.>Dʻ J +@ʻ <%%ʻ +@<+ʻ 0<#+ C<%ʻ ?C >OC>ʻ 0ʻ +@<+ D<Eʻ C1#%Dʻ ?#AA%E!ʻ <ODʻ '1.+ @>Dʻ $Eʻ %<.=>ʻ A.<C+ C<%ʻ >KP A>. >OC>!ʻ +@>ʻ .>'%>C+ 0=ʻ B 0Dʻ 1'ʻ 1%#B$#?ʻ J<?ʻ 0<+#P .<%%Eʻ %>Dʻ +1ʻ ?A>C#%<+>ʻ 10ʻ +@>ʻ>K ?+>OC>ʻ 1'ʻ?1B>ʻ 1+@>.ʻ %<ODʻ $>E10Dʻ +@>ʻ J>?+>.0ʻ J<+>.?Lʻ <ODʻ @>ʻ C1OC> ,>Dʻ +@>ʻ A1?? $ % +Eʻ 1'ʻ.><C@ 0=ʻ +@>ʻ><?+>.0ʻ ?@1.>?ʻ 1'ʻ ? <!

Qʻ 1%5 Gʻ8, ʻ5 ʻ C ʻ !ʻ(!ʻ(FFF,! J $) Gʻ8, ʻ5 ʻ $.ʻ $)5 ʻ ,4!ʻ ,,!ʻ (!ʻF,,,!< 5!ʻ %5 ,5ʻ /H !

A ʻ % ʻ) ʻ $00,(,) ʻ 5% %ʻ 0 ʻ5 1,),)'ʻ A ʻ3 , 5ʻ 0* ; 14 Kʻ 4, A!ʻ A ʻ %) 5ʻ $) Gʻ3 %(ʻ, ʻ,)ʻ DD !ʻP8, ʻ 5 ʻ $.ʻ $)5 ʻ ,4!ʻ ,,!ʻ (!ʻ F,,!Xʻ %.% ʻBA ʻA% ʻB ,'A; 5ʻ A ʻ.% , $ʻ %$ A , , ʻ B, Aʻ (%$,) ʻ 1ʻ ,)(,) 5ʻ ʻ ; 1 .ʻ, ʻ4%(@ʻK ,'Aʻ ʻ)ʻC % ʻ 0$ A ʻ ,)'ʻ (A, 0Cʻ)ʻ%ʻ ; 1%@ʻ 0ʻ 1%5 Gʻ A% ʻA ʻ5, 5ʻ ,)ʻ 6 ʻY ʻ,)ʻ%ʻ ' 5ʻ 5ʻ%' ʻ% ʻ A ʻ%' ʻ 0ʻ .) Cʻ%ʻ ʻ1 ʻ ʻ ![ʻ P*%3!ʻ (FFF,!X A ʻ F; 3 ,)ʻ, ʻ 1 BA% ʻ.%'$!ʻ)ʻ 5 ʻ ʻ ( )(, ʻ A ʻ0%(ʻB, A A, ʻ AC3 A , ʻ %.% ʻ , ʻ (13 5ʻ ʻ + (ʻ% ʻ%ʻ (A, >ʻ ' %3A,(% ʻ 4 $)5 ʻ %ʻ3% %' ʻ ,)ʻ %ʻ 0ʻ A ʻ%51, % ʻ 3 %(,)'ʻ A, ʻ 4, Aʻ,)ʻ D6 ʻ%)5ʻ ʻ 5, ; ʻ%) A ʻ3% %' ʻ,)ʻA, ʻ 4 @ʻ 03 3A (, ʻ BA,(Aʻ,0ʻ, % Cʻ %@)ʻ B $5ʻ 1ʻ ʻ %4 , Aʻ A, ʻ 4, Aʻ) %ʻ A ʻ ,1 ʻ% ,') 5ʻ 4Cʻ $) G!ʻ)(,5) %ʻ% $,) ʻ ,)ʻ 1 ʻ A ʻ%$ A , , ʻ 3 %@; ,)'ʻ 0ʻ * 14 Kʻ 5ʻ%' ʻ%ʻ ʻ) %ʻ A ʻ ,1 ʻ 0A, ʻ5 % Aʻ) 'Cʻ (4 % ʻ %.% Kʻ ,)0)(! P ʻ * ((,)ʻ 5 E,%' ʻ 1!,!ʻ) 5!ʻ (! ,.!X J ! .,)'ʻ 1ʻ B, ,)'ʻ ʻ Cʻ F($,. Cʻ)ʻ A ʻ%$ A , Cʻ 1%5 G!

J@1?>' A.1, 0C>?' 1''V A<0=1' <0D' <+@<E' J>.>' >B$%<P G10>D' 0' ?#C@' =1.=>1#?' C1%1#.?' 0' +@>' 0<..<+ ,>?' 1'' <0D>, %%>' <0D' +@>' 51% !' @EJ<' B1.>' D .>C+' <0D' C1BP B1D 1#?' .1#+>' +@<0' +@<+' J@ C@' +.<,>.?>D' +@>' ><?+>.0' C10+ 0>0+ T

@>' >K ?+>0C>' 1''%<0D' $>E10D' +@>' +%<0+ C!' J@ C@' J<?' 01+' D ?C.>D +>D' $E' ?1B>' 1''+@>' B1?+' >0% =@+>0>D' <0C >0+ "'' @<D' $>C1B>' B<++>.' 1''C1B B10' ?A>C#%<+ 10' <+' +@>' C%1?>' 1''+@>' ' '+>>0+@' C>0+#.E!' J@>0' B<. + B>' <D,>0+#.>' J<?' D< %E' D ?C%1? 0=' +@>' BE?+>. >?' 1'' +@>' D>>A!' <0D' $. 0= 0=' +1' % =@+' 0>J' .>= 10?!' +@<+' @<D

Q')), ' 5 ' 8 %' 8, !' :)!' 5 ' %')5, ' ((,5) % ' 14 ' / I ' 1!',!' (!',!' ,4!',!' (%3!' ,,! J : 1% %' 8, >' ,%' 5 ' %')5, ' (%3!' F,.!'%3$5' 8, ,%5 ' ,1, ,. ' 5 ' %>' (,%' 1!' ,,! J 1% 5 G' 8, !' !' (!' (F.,,,! J %.% ' * >' ((,)' 5 ' E,%' ' 1!',!') !' (!' ===!

5,)%)5' * 14')$1 ; % ' A ' ' $)5 ')' BA,(A' A,' 0% A K' ( ).,(,)' 0' %)5' ' A ' 9 ' B% ' 0 $)5 5-' , ')% $ %' %)' ' ( )($,)' 5 %B)' 0 1' (,)(< ( )5'%$; A , C' 0' B , ' %1 $) ,)'' ' , ' 1 ' A%)' .%'$ ' 3 ($; %,) ' 0' A ' %)(,) < A, 5' ,1)C' 0' %, ' (13 ; A)5,)'' ,)' %55, ,)' ' 3 3$%' $1 $ ' 0' %)5'5 (, 5',)' B ;)' . C%' ' $(A' ,(' %' %3; 3 % 5' ' A%. ' 0 % 5' ' A ' $ 3 %)' A ' 0 1' A ' A ' ,5 ' 0' A ' %) ,(!' 8, ' 5T' 1, %) ' (!' .,!' .,,,! ') ' 0' A ',) ,1% ,) '% ' 3 (, ' %' A%' ( ) %,) 5' 1' A ' B >@) B)' ,) ' 0) (%W' 5 %

Z' E),) '%)), ' ($% [' \(!

% A $'A' BA)' '% 5 5' %' %' 1 ' 3 ,(%' .%'% C' , ' A%') ' A ' B ,'A' BA,(A' 4)' ' ' 1 ' , $' $' ' ,) ' 0' ,1, %',1; 3 ' ,)' A ' B , ,)' ' 0' , ' %)5' %4 !' A ' .% , $' % $; ,) ' ,)' A '%)(,) ' (% ,(' B , ; ' ' %)' ,15, (. 5' B 5' 0 1' A ' $4+ (' 0'%)' %4 % ' %C' ,)' A ' 1 ,%' 5%' (%5!' %' 5%' (,)(,% 5 ' , 4 %'%)5' % ' 14 5, 5 ,)' 1$(A' ' % ' 5 %, ' ,)' A '0, ' (,)' 08$1>' 4 5 K' 8, ' 5' %' : ' %3A, '5$' $. %$' *) ,)) < %' B @' ,)' BA,(A' A '%$ A ' B, A' A, ' $ $%' %($) ' A%' $((0$ C' %3; 3 , 5' A ' .% ' ' 0' A, ' $; 5, ,)' %)5' F3 ,)(' ' A ' , ; $ %, ,)' 0' 1%)C' ,) ,)'' 3 ,) ' ( )) (5' B, A' A ' !5, (; . C' 0' A ' B' 9 5' %T5' A ' 3)%' A, C' 0* 314$!

@ +@>.+1' >K ?+>D' 10%E' 0' '<0CE' &A.11'' 1'' +@ ?' A1A#%<.' $>% >'' 1CC#.?' 0' <' C#. 1#?' A<??<=>' 1'' +@>' 1.=<0+' <== 1.>' 1'' +@>' %1.>0+ 0>' A1>+' 5#%C !' <' B<0' 1'' %>++>.?!' $#+' 01+' D ?+ 0=# ?@>D' '1.' ?C >0+ ' C' <++< 0B>0+?' $>E10D' @ ?' D<E T' @>' A<??<=>' ?' .>P B<.H<$%>!' 0D>A>0D>0+%E' 1''+@>'C1?B1=.<A@ C<%H01JP %>D=>' +' BA% >?!' '1.' +?' <%%#? 10' +1' A@>01B>0<' 0' A@E? C<%' ?C >0C>' 01+' >?+<$% ?@>D' + %%' B1.>' +@<0' <' C>0+#.E' %<+>.' @>' D>, %!' <%%#D 0=' +1' +@>' ,#%=<.' ?#A>.?+ + 10' .>?A>C+ 0=!+@>' A %%<.?' 1'' >.C#%>?!' +@#?' <DD.>??>?' @ ?' C1BA<0 10' 0<%D1

Y' ") B' A%' A,' A C',' 0% 4 A,' 4% @' A' 5% ,)'' 1% ,)' A%' $ '' 0%' K' A' B)' B%. '%' 1 A' %)5' . '3 %,)! 4 ,' A' % A',' 0% A,) 5' ,@' %' BA ! %)' B%',)' %)(,)' 5%C' 0' ' 1 $ 5!)5' 8 ($ ' 1,'A' 4 $ A' ' %)' A B' 0%' C)5' A' ,1, ' A' A%5' .%,) C' ! A' 5$ ' %>4 %')' A%' B,)'' A' B%C!)' A%' 5 (C'%) A' A 1, 3A ! ,)(' ')' (11)' ( ) ' %' A,)'')5< ' % A' 4C' ($, $' 1C C' 5,.,) 9 ' 4% %)(5' A%)'' %1,5' A' % C' 3A ! ' $') ,3 5 ' %' (, ' % !)5' A)' 5' 13, ') K' 5,.,) 5' 0' C ! $' ' A' $)' 3 5')' A,' B)' 3% A' ' '%5' A')%,)' B, A' F3 (5' ,'A ![']

Q' ', ' 3 4%4 C' A' @) B; %)5' * (,14), E '%' %' 5' ' 0' A, ' BA,(A' A%' 5' 1' E) G,%' 9 ! 1!',,,!'33!79 !' B , ' ' ,13$ ' 3% ' 0' A, ' B @' ' A' %) 5' % , , ' ,>' ' $ (,' '%) ' %'', ' (,) 4 %)5' A ' B, A' , ' ' *%) ' ==E!' !' 77:!' 7 ' O' (A% , C' %)5' 3 4%4, , C' ' 0 ' ' A%. ' $ 5' 4 %)@' . ' \' %0; A' %$ A A,3' 0' A' BA ' ' 0 5,)'' 0%(, , C' 0 '%' 1 ' , %' , ,%)!' *0!' % ' 3 'E) ; . ,)' A%)' A' (3)5,)'' G,%' 9 8M67!' 1!' =!' 3!' 7:L !* , '! ' 0' A' ,',)%!' A,

1%#B$#?? @EA1+@>? ?' .>?+>D' 10' B#C@' @ =@>.' =.1#0D' +@<0' B>.>' A1A#%<.' $>% >' ' @<+' 0D>>D' J<?' C.>D#% +E' J +@' +@>' ,#%=<.!' <0D' ?A>C#%<+ 10' J +@' +@>' %><.0>D!' <B1#0+>D' 0' @ ?' B 0D' +1' <' ?>++%>D' A.<C+ C<%' C10, C+ 10!' +@<+' B<D>' @ B' .><DE' +1' A>. %' % '>' <0D' '1.+#0>' 10' +@>' .>?#%+' 1'' +@>' >KA>. B>0+' >' J<?' '1.+ ' >D' ?+ %%' '#.+@>.' 0' @ ?' C10C%#? 10?' $E' <' C1..>P ?A10D>0C>' J +@' +@>' %><.0>D' +<% <0' 1?C<0>%% !' J@1' '#.0 ?@>D' @ B' J +@' <' B<A' 1'' @ ?' 1J0' A.1">C+ 10!' 0' J@ C@' +@>' ><?+>.0' C1<?+' 1'' ? <' J<?' D>% 0><+>D' 1AA1P ? +>' +1' +@>' J>?+>.0' '.10+ >.' 1'' #.1A> T

A<??<=>' 1'' 5#%C !' J@ C@' @<?' 01+' '<%%>0' #0D>.' +@>' 01+ C>' 1'' #BP $1%D+!' 1.' <0E' J. +>.' 10' +@>' ?<B>' ?#$"><+' J@1B' ' @<,>' C10?#%+>D!' <''1.D?!' A.1$<$%E!' +@>' B1?+' C .P C#B?+<0+ <% A.>D C+ 10' +@<+' ?' +1' $>' '1#0D' 1'' +'' >' >K ?+>0C>' 1'' <' >?+>.0' J1.%D' <0+>!' +J1'C>0P +#. >?' $>'1.>!' @<D' 0+ B<+>D' B1.>' ,<=#>%E @ ?' $>% >'' 0' <0' #0D ?C1P ,>.>D' F#<.+>.' 1'' +@>' =%1$>

' >' ,1?+.' ?>0? !' C@>' D>%' . M B<0>0+>
10' ,1=% <+>' 0>=<.' >?A>. M >0G<!
N .>+.1' <% ?1%!' D>% B10D1' ?>0G<' =>0+> R
0'>.01!' <0+!' KK, ' ,' 8

<,<. .>+>!' 1%>CC 10' D>' M <=>?!' +1B' ' 1%' A%' 1' O' #01G!' ?+1. <D>% #>,1' #0M D1!' % $' ' ?>C'K,
+' ?' ? 0=#%<.' +@<+' 1%#B$#?!' 0' @ ?' , ?+' +1' C>%<0D!' 0' 699!' -?>>' ?+!'D>% %B .<0+>!' C<A , * ?@1#%D' @<,>' %><.0>D' 01+@ 0=' 1'' +@>' C<0D 0<, <0' ,1E<=>?' +1' +@>

) A)' A ' 0' 1 ,(%',)' A ') A' %)5' 0 B,)'' ( ) $; , '< %)5' ,0' A' B% '%(2$%,) 5' B, A' A 1 ' ' %33 % ' 2$% C' $ 3 , ,) '' A% ' A ' A $ 5' ,3X' A%. ' %55$(5' A ' 0%(' ,)' $3; 3 ' 0'A, ' B)' AC3 A ,' 0' A ' F,)(' 0' %)5' ,)' A ' 9 ' %)5' A% 'A ' A $ 5' A%. ' %@)' < $ ' ' 5,00)'0 1'A, '3 5 ; (' ,)' A ' 3% A' 0' 5, (. C!' ' 1%C4 'A B . '% ' !' 8$1>' 4 5' A% ' B ' 1% @ 5' A% ' A ' ,)0 1%,)' A ' 4%,) 5' ,)' (%)5' B% ' ' .%'$ ' ' $' ' ' A ',5 % A% ' A ' %)5 ' A$ '5, ; (. 5' 4C' A ' A1)' A%5' %)C' ( )) F,)' B, A' A ')5, ' 0' BA,(A' A ' B% ',)' 3$ $, !')' * 14 K' 5%C' ,)5 5' ' , ; ' B% ' $)5 5' 0' A ' $ ' 3 , ,)' 0' A ' ($) , ' A% ' :) %)5' , ' %,5' 5 B)')' A ' 1%3 ',)' A ' $ 3 %)' % '%)5' % ' %' 3),) $ % ' 3)'% ,)' 0' (%)5,)% .,%!' '8$14 5 8, !' 5 ' % : ' %3A,(' 5$' $. %$' *) ,)) ' 1 ',,!' 33' I! 6!

%%>D' J +@' %1'+E' <0+ C A<+ 10?' 1'' <C@ >, 0=' <' D ?P C1,>.E' J@ C@' J1#%D' ?>++%>' <' F#>?+ 10' 1'' ?#C@' B1P B>0+!' ?1' %10=' 0,1%,>D' 0' 1$?C#. +E!' 1%#B$#?' ?#$P B ++>D' +@>' +@>1.E' 10' J@ C@' @>' @<D' '1#0D>D' @ ?' $>% >'' 0' +@>' >K ?+>0C>' 1'T' <' J>?+>.0' .1#+>' +1' S 0=' /1@0' ' 1'' 51.+#=<%' >.>' @>' J<?' D11B>D' +1' >0P C1#0+>.' '1.' +@>' ' .?+' + B>' +@>' >B$<..<??B>0+?' <0D' B1.+ ' C<+ 10?' J@ C@' ?1' 1'+>0' 1$?+.#C+' +@>' C10C>AP + 10?' 1'' =>0 #?!' +11' ?#$% B>' '1.' +@>' <=>' 0' J@ C@' +@>E' <.>' '1.B>D' '+>.' <' %10=' <0D' '0#+%>??' 0>=1P + <+ 10!' <0D' <' D ?@101#.<$%>' <++>BA+' 10' +@>' A<.+' 1'' +@>' 51.+#=#>?>' +1' <,< %' +@>B?>%,>?' C%<0D>?+ 0>%E' 1'' % ?' 0'1.B<+ 10!' @>' F# ++>D' ?$10' 0' D ?=#?+!' D>P +>.B 0>D' +1' ?#$B +' @ ?' A.1A1?<%?' +1' +@>' A<0 ?@' ?1,>.> =0?!' .>%E 0=' 10' +@> .' .>A#+>D' C@<.<C+>.' '1.' J ?D1B' <0D' >0+>.A. ?> T

@>' A>. 1D' 1'' @ ?' <.. ,<%' 0' A< 0!' $> 0=' +@>' %<++>.' A<.+' 1'' 646!' J1#%D' ?>>B' +1' @<,>' $>>0' +@>' B1?+' #0A.1A + 1#?' A1?? $%>' +1' @ ?' D>? =0' @>' 0<P + 10' J<?' +@>0' 0' +@>' @><+' 1'+@>' 11. ?@' J<.!' <0D' +@>' ?1,>.> =0?' J>.>' #0 0+>.B ++ 0=%E' >0=<=>D!' <?' J>' @<,>' ?>>0!' 0' A.1?>C#+ 0=' +@> .' C<BA< =0?!' 1.' 0' <C+ ,>' A.>A<.<+ 10' '1.'+@>B' @>' %<.=>' >KA>0D +#.>' 0C D>0+' +1' +@ ?!' >K@<#?+>D' <%%' +@> .' .>?1#.C>?L' <0D!' 0D>>D!'+@>'>0=.1?? 0=' C@<.<C+>.' 1'' +@ ?' D1B>?+ C' C10P F#>?+' %>'+' +@>B' % ++%>' %> ?#.>' '1.' 0D#%= 0=' 0' D.><B?

L' 8 %')5!' ((,5) % ' . ' .,' 4,' 8, ,c' ,4!',!' 1!',!' ?X (!',!' ,4!',!' (!' .,,! J $>' $ (%3!' .,!T J)%)5' *)' 8, ' Q,, G' 8, !5' $.' $)5' ,4!' 5' 1, %) ' (! F! J % ,%' E' %,,P (!F,F! J : 1% % 8, !5' % ' $ %' $ 3!' $'$ %' 1!')5,% ' (%3!' F.! J)G), ' >' ,,!' !' ,,,!' (!',.!

1''D ?+<0+' <0D' D1#$+'#%' D ?C1,>.E' 1%#B$#?!' B1.>P
1,>.!' J<?' #0'1.+#0<+>' 0' @ ?' ' .?+' C@<00>%' 1'' C1BP
B#0 C<+ 10' J +@' +@>' C1#.+' >' J<?' '#.0 ?@>D' $E'
.<E%#<0' 5>.>G' D>' <.C@>0<!' #<.D <0' 1''+@>' C10M'
E>0+' 1'' <' %%<$ D<' 0' 0D<%#? <!' J@1' @<D' ><.%E'
+<H>0' <' D>>A' 0+>.>?+' 0' @ ?' A%<0?!' J +@' <0' 0+.1M
D#C+ 10' +1' >.0<0D1' D>' <%<,>.<!' 5. 1.' 1'' 5.<D1!'
<0D' C10'>??1.' 1'' +@>' F#>>0!' <' A>.?10' @ =@' 0' +@>'
.1E<%' C10' D>0C>!' <0D' =.<D#<%%E' .< ?>D' +@.1#=@' <'
?#CC>?? 10' 1'' >CC%>? <?+ C<%' D =0 + >?' +1' +@>' <.C@ M'
>A ?C1A<%' ?>>' 1'' .<0<D<' >' J<?' <' B<0' 1'' ..>P
A.1<C@<$%>' B1.<%?!' <0D' 1''C1BA.>@>0? ,>' $>0>,1%>0C>'
'1.' +@<+' D<E!' <?' ?' ?@1J0' 0' @ ?' ?#$?>F#>0+' +.><+B>0+'
1''+@>' #0'1.+#0<+>' 1. ?C1? T' >' J<?' <%?1' %><.0>D' L'
<%+@1#=@' @ ?' %><.0 0=' J<?' +@<+' 1''+@>' C%1 ?+>.!' D>>A%E'
+ 0C+#.>D' J +@' A>D<0+.E' <0D' ?#A>.?+ + 10!' <0D' D>$<?P
>D' $E' ?#C@' ?>.,%>' D>'>.>0C>' >,>0' +1' +@>' >..1.?' 1''
<0+ F# +E!' <?' <+' 10C>' %>D' @ B' +1' D ?C1#0+>0<0C>'
>,>.E+@ 0=' % H>' 001,<+ 10' .' >0+>.A. ?> '

+@' +@>?>' + B D' <0D' >KC%#? ,>' , >J?!' <%<,>.<'
J<?' ?1' '<.' '.1B' C1BA.>@>0D 0=' +@>' ,<?+' C10C>A+ 10?'
1'' 1%#B$#?!' +@<+' @>' ?>>B?' +1' @<,>' .>=<.D>D' @ B' <?'
<' B>.>' , ? 10<.E!' <0D' @ ?' @EA1+@>? ?' <?' 0,1%, 0='
A. 0C A%>?' 01+' <%+1=>+@>.' 1.+@1D1K' >.D 0<0D' <0D'
?<$>%%<!' D>? .1#?' 1'' 1$+< 0 0='!+@>' 1A 0 10' 1'' +@>

L' #$,)($%')%' 5' ., 5' $) G' 3 3)' A,' %5.)'
!' 5,%' 5' %%. %! ' 3%,)' ' DI6')' A' $33 ;
0' %%G%' 5')5 G%' * >' ,,)' A%' A' 5' A,' ;
),(%' 5' : %)' *% 5)%' 3!' D!' .,(' ' :) %,1 1 5,% C' %0;
J' 8 %')5,%' ((,5) %' ' A,' $3 $ ' B, A' $'%!'
1!' ,!' (!' ,!' ,4!' ,!' (!' .,,,! J' J' $. ' ,,)5' ,4!' ,,!' '
)%)5' *)' 8, ' 5' 1,>' FF,!
%) '(!' F,!

B1?+' C1BA>+>0+' "#D=>?' 10' +@>' B>. +?' 1'' 1%#B$#?' ?' +@>1.E!' .>'>..>D' @ B' +1' <' C1#0C %' ?>%>C+>D' $E' <%<M' ,>.<' '.1B' +@>' B1?+' >B 0>0+' ?C@1%<.?' 1''+@>' H 0=D1B!' C@ >'%E' >CC%>? <?+ C?!' J@1?>' A.1'>?? 10' >B$1D >D' B1?+' 1'' +@>' ?C >0C>' 1'' +@<+' D<E' #C@' J<? +@>' <A<+%*U' >K@ $ +>D' $E' +@ ?' %><.0>D' C10C%<,>!' <0D' ?1' 0#B>.1#?' +@>' BA>D B>0+?' ?#==>?+>D' $E' D#%0>??!' A.>"#D C>!' 1.' ?C>A+ C ?B!' +@<+' E><.?' =% D>D' <J<E' $>'1.>' +' C<B>' +1' <' D>C ? 10' #. 0=' +@ ?' + B>!' 1%#B$#?' <AA><.?' +1' @<,>' .>B< 0>D' 0' <++>0D<0C>' 10' +@>' C1#.+!' $><. 0=' <.B?' 1CC<? 10<%%E' 0' +@>' C<BA< =0?!' <0D' >KA>. >0C 0=' '.1B' +@>' ?1,>.> =0?' <0' #0#?#<%' D>=.>>' 1'' D>'>.>0C>' <0D' A>.?10<%' <++>0+ 10L' <0' >, D>0C>' 1'' J@ C@' ?' <''1.D>D' 0' +@>' D ?$#.?>B>0+?' .>A><+>D%E' B<D>' $E' +@>' .1E<%' 1.D>.' '1.' @ ?' A. ,<+>' >KA>0?>?!' <0D' 0' +@>' 0?+.#C+ 10?' ??#>D' +1' +@>' B#0 C A<% + >?' 1''+@>' D ''>.P >0+' +1JO?' 0' 0D<%#? <' +1' ?#AA%E' @ B' =.<+# +1#?%E' J +@' %1D= 0=' <0D' 1+@>.' A>.?10<%' <CC1BB1D<+ 10? T'

+' %>0=+@!' @1J>,>.!' 1%#B$#?!' J><. >D' 1#+' $E' +@ ?' A< 0'#%' A.1C.<?+ 0<+ 10!' A.>??>D' +@>' C1#.+' '1.' <' D>' P 0 +>' <0?J>.' +1' @ ?' A.1A1? + 10?L' J@>0' @>' JU?' 0P '1.B>D' +@<+' +@>' C1#0C %' 1'' <%<B<0C<' A.101#0C>D' @ ?' ?C@>B>' +1' $>' Q' ,< 0!' BA.<C+ C<$%>!' <0D' .>?+ 0=' 10' =U.1#0D?' +11' J><H' +1' B>.+' +@>' ?#AA1.+' 1'' +@>' =1,>.0B>0+ R' <0E' 0' +@>' C1#0C %!' @1J>,>.!' J>.>' +11' >0% =@+>0>D' +1' <CF# >?C>' 0' +@ ?' ?>0+>0C>' 1''+@>' B<"1. +E' 1B>' 1''+@>' B1?+' C10? D>.<$%>' A>.?10?' 1'' +@>' C1#.+!' 0D>>D!' 1,>D' $,' +@>' C1?.>0C,' 1'' 1%#BM

!L' 8 %')5' ((,5) %!' .% L' * ((,)' 5' E,%' ' C' (!' ,!' ,4!' ,!' (!' .,,,! J N$0,,'%' ($4!' 1!' ,!' (! F!' F,!')% ' 5' ., %' 3!' D! J %_ 1!',!' * ! ,3 1%!' ! !' D!

*

$#? ?' <.=#B>0+?!' <0D' <''>C+>D' $E' +@>' >%>,<+ 10' <0D'
=.<0D>#.' 1'' @ ?' , >J?!' 01+' 10%E' C1.D <%%E' >B$.<C>D'
@ ?' ?C@>B>!' $#+' >K+>0D>D' +@> .' A>.?10<%' 0+ B<CE'
<0D' '. >0D?@ A' +1' @ B ' #C@!' <B10=' 1+@>.?!' J>.>'
+@>' .<0D' <.D 0<%' >0D1G<!' <' B<0' J@1?>' >0%<.=>D'
C<A<C +E!' <0D' <CF#< 0+<0C>' J +@' <''< .?!' .< ?>DU' @ B'
<$1,>' B<0E' 1'' +@>' 0<..1J' A.>"#D C>?' 1'' @ ?' C.#D>.L'
<0D' >G<!' .C@$?@1A' 1'' >, %%>!' <' 1B 0 C<0' ' 0<.!'
J@1?>' C1B B<0D 0=' +<%>0+?' J>.>' <'+>. J<.D?' #0@<AP
A %E' A>.,>.+>D' 0' +@>' ?>., C>' 1''+@>' @1%E' 1'' C>!' 1,>.'
J@ C@' @>' A.>? D>D' <?' ?#CC>??1.' +1' 1.F#>B<D< T'
@>' <#+@1. +E' 1'' +@>?>' 0D , D#<%?' @<D' #0D1#$+>D%E'
=.><+' J> =@+' J +@' +@>' ?1,>.> =0?!' J@1' ?1'+>0>D' +@>'
,>.D C+' 1'' +@>' "#0+1' $E' <0' <??#.<0C>' +1' 1%#B$#?'
+@<+!' XX<%+@1#=@' +@>E' J>.>' +11' B#C@' 1CC#A >D' <+&
A.>?>0+' +1' >B$<.H' 0' @ ?' #0D>.+<H 0=!' E>+' <+' +@>'
C10C%#? 10' 1'' +@>' J<.' +@>E' ?@1#%D' ' 0D' $1+@' + B>&
<0D' 0C% 0<+ 10' +1' +.><+' J +@' @ B R' #C@' J<?' +@>'
0>''>C+#<%' .>?#%+' 1'' 1%#B$#? ?' %10=' <0D' A< 0'#%'
?1% C +<+ 10L' <0D!' '<.' '.1B' .>C> , 0=' +@>' F#<% ' >D&
<??#.<0C>' 1'' +@>' ?1,>.> =0?' 0' B + =<+ 10' 1'' +@> .'
.>'#?<%!' @>' ?>>B?' +1' @<,>' C10? D>.>D' +' <?' A>.>BA+1.E'
<0D' ' 0<%' 0' =.><+' D>">C+ 10' 1'' B 0D!' +@>.>'1.>!' $#+

#' 50(8!/ '4/' /&(./ /C'' 45/%0%'' *(%10/ (' /80*(8'' 8!/<
9'0=(6' (' 8((!'=%4 !/08/*4'=/ /!6/)4' 4(' 45/ 6/4!(8(4')0/5
8'!/)40' '4 (!(' / /'!.' /)< (' /, /' 0 04%'4 ()' '0
4/!/.'45/ (6)*')'(!./!'95/!/ *()/00((!(' /!.)')'.'&',/56
50 /'!)&')'./+/68'!.' / &!/'4)%/)*/ (,/!' 45'4 6()<
!/*(66/)./.' 56'4(45/)(4*/ '!*5' 945' 95(6' 5/ '88/'!0
(' 45/ 0(,/!/&)0' 95(*'' /.' 4(5',/6')4')/.' ')')46'4/
56'4(*(%14' 4('4'?/*5'!&/ (' *(!!/08().)*/4(45/.'.' (' 50
$!)*/ (5)>0 /.%*'4()' / ./'45' ()C.(' ./ ,/.('
9'00%=0/D%/)4.'!'0/.'45!(%&5 E%)*%'&/)'0' '.''./ /C'

J +@1#+ʻ '#.+@>.ʻ D>%<E!ʻ @>ʻ F# ++>Dʻ +@>ʻ C1#.+!ʻ <0Dʻ $>0+ʻ @ ?ʻ J<Eʻ +1ʻ +@>ʻ 1#+@!ʻ 0ʻ +@>ʻ <AA<.>0+%Eʻ <%B1?+ʻ D>?P A>.<+>ʻ 0+>0+ʻ 1'ʻ ?>>H 0=ʻ 1#+ʻ ?1B>ʻ 1+@>.ʻ A<+.10ʻ +1ʻ @ ?ʻ #0D>.+<H 0= T

1%#B$#?ʻ @<Dʻ <%.><DEʻ , ? +>Dʻ @ ?ʻ 0<+ ,>ʻ C +Eʻ 1'ʻ >01<!ʻ J +@ʻ +@>ʻ A#.A1?>ʻ 1'ʻ 0+>.>?+ 0=ʻ +ʻ 0ʻ @ ?ʻ ?C@>B>ʻ 1'ʻD ?C1,>.ELʻ $#+ʻ +@>ʻ <++>BA+ʻA.1,>Dʻ #0?#CP C>??'#%ʻ >ʻ 01Jʻ B<D>ʻ <AA% C<+ 10!ʻ +ʻ J1#%Dʻ ?>>B!ʻ +1ʻ +@>ʻ #H>?ʻ 1'ʻ >D 0<ʻ D10 <ʻ <0Dʻ >D 0<ʻ >%%ʻ ?#CC>?? ,>%E!ʻ '.1Bʻ +@>ʻ %<?+ʻ 1'ʻ J@1Bʻ @>ʻ >KA>. >0C>Dʻ B#C@ʻ H 0D0>??ʻ <0Dʻ @1?A +<% +ELʻ $#+ʻ 0> +@>.ʻ 1'ʻ+@>?>ʻ 01$%>?!ʻ J@1?>ʻ %<.=>ʻ >?+<+>?ʻ %E 0=ʻ <%10=ʻ +@>ʻ ?><?@1.>ʻ @<Dʻ 1'+>0ʻ 0, +>Dʻ +@>Bʻ +1ʻ B<. + B>ʻ<D,>0+#.>!ʻ J<?ʻ D ?A1?>Dʻ +1ʻ<??#B>ʻ10>ʻ J@ C@ʻ ?>>B>Dʻ +11ʻ @<G<.D1#?ʻ '1.ʻ +@>ʻ .>?1#.C>?ʻ 1'ʻ +@>ʻ C.1J0ʻ 6: ʻ +@1#+ʻ J<?+ 0=ʻ + B>ʻ 0ʻ '#.+@>.ʻ ?1% C +<+ 10!ʻ 1%#B$#?ʻA.>P A<.>Dʻ J +@ʻ <ʻ @><,Eʻ @><.+ʻ +1ʻ$ Dʻ<D >#ʻ +1ʻ A< 0!ʻ <0Dʻ C<..Eʻ @ ?ʻ A.1A1?<%?ʻ +1ʻ +@>ʻ S 0=ʻ 1'ʻ .<0C>!ʻ '.1Bʻ J@1Bʻ @>ʻ @<Dʻ .>C> ,>Dʻ <ʻ %>++>.ʻ 1'ʻ >0C1#.<=>B>0+ʻ J@ %>ʻ D>+< 0>Dʻ 0ʻ 0D<%#? < '

Qʻ)%)5ʻ *)ʻ 8, ʻ 5ʻ %33,(%,)ʻ ʻ :) %ʻ 3,4ʻ ʻ 1,%) ʻ (!ʻF,!J %%G%ʻ5ʻ A%ʻ ʻ $'%!)5 G%ʻ *)ʻ5ʻ : %)ʻ *%>ʻ ʻ ʻ0 1ʻ Aʻ $@ʻ 0ʻ 5)%ʻ3!ʻ 6!ʻJʻ $) Gʻ 8, ʻ 5,)%ʻ * ʻ ʻ Aʻ *%5,)%ʻ 0ʻ 5ʻ $.ʻ $)5ʻ ,4!ʻ,!ʻ (!ʻ 3%,)ʻ5% 5ʻ HAʻ %(Aʻ DHʻ ==E!ʻFF,F!ʻJʻ %.% ʻ* (>ʻ 0ʻ ʻA,ʻ) 1),)'ʻ* $1; (,)ʻ5ʻE,%' ʻ 1!ʻ,!ʻ) !ʻ 4$ʻ%ʻA,ʻ'$ ʻ0ʻB ʻC % !ʻ (!ʻ F! ʻ,ʻ. C5,00,($ʻ5 1,)ʻ]ʻ8 %ʻ)5!ʻ ((,5) % ʻ A ʻ5% ʻ 0ʻA ʻ B ʻC % !ʻ 0ʻ (!ʻ,!ʻ ,4!ʻ,!ʻ (!ʻ.,,,!Jʻ $,, Gʻ 8 %ʻ,ʻ((ʻ,)ʻ ,ʻ % !Lʻ 8, ʻ5ʻ $.ʻ $)5ʻ ,4!ʻ,,!ʻ 1)ʻA%ʻ%0 ʻ0,.ʻC % Kʻ ,; ! FF.,,!ʻ Jʻ 3 21 ʻ 8, !ʻ 5)(ʻ%ʻ(,$ʻBA ʻ(11)(; 1!ʻ 0ʻ* 14ʻ)'!ʻ !ʻ33!ʻ 1)ʻA ʻA%5ʻ3 ., $ Cʻ 0 5ʻ J !J Aʻ % ʻ5% ʻ A ʻ DIDʻA ʻ(% ,5ʻA,ʻ3 3

?'A.1=.>??!'@1J>,>.!'J<?'<..>?+>D'<+'+@>'C10,>0+'1''<'S<$D<!'J@C@'@>',?+>D'A.>,1#?'+1'@?'D>PA<.+#.>!'$E'@?''.>0D'+@>'=#<.D<0!'J@1'A.>,<%>D'10'@B'+1'A1?+A10>'@?'"1#.0>E'+%%'<01+@>.'>''1.+'@<D'$>>0'B<D>'+1'B1,>'+@>'A<0?@'C1#.+'0'@?''<,1#.'1.'+@?'A#.A1?>'+@>'J1.+@E'>CC%>?<?+C'#0PD>.+11H'<0'>KA>D+10'0'A>.?10'+1'+@>'0>UE%EM>.>C+>D'C+E'1''<0+<'!'J@>.>'+@>'?1,>.>=0?'%<E'>0C<BA>D'$>'1.>'.<0<D<'/#<0'5>.>G'@<D'1.B>.%E'$>>0'C10P'>??1.'1''?<$>%%<!'<0D'J<?'@>%D'0'=.><+'C10?D>.<+10'$E'@>.'1.'@?'>KC>%%>0+'F#<%+>?'0'<..,0='<+'+@>'C<BA!'@>'J<?'.><D%E'<DB++>D'+1'<0'<#D>0C>!'J@>0'@>'A.>??>D'+@>'?#+1''1%#B$#?'J+@'<%%'+@>'><.0>?+0>??'<0D'.><?10 0='1''J@C@'@>'J<?'C<A<$%>'@>''.<.?'>%1F#>0C>'J<?'?#AA1.+>D'$E'+@<+1''?>,>P.<%>B 0>0+'A>.?10?!'J@1B'1%#B$#?!'D#.0='@?'%10='.>?D>0C>'0'+@>'C1#0+.E!'@<D'0+>.>?+>D'0'@?'A.1"">C+!'<0D'J@1',>J>D'J+@'?0C>.>'.>=.>+'+@>'A.1?A>C+'1''+?'<$<0D10B>0+'B10='+@>?>'0D,D#<%?'<.>'A<.P+C#%<.%E'B>0+10>D'%10?1'D>'I#0+<0%%<!'C1BAM

%A' 'A' $@' 0' 5,)%' *' P' (%3!'.,!'.,,,!X'A'B'C%'1%C'A%.',) .)5'4;'B)' DIHJH!' %.%' 3%(' A 1'4 B)' A' 5;'3%$'0 1' $'%'%)5'A'0,'%33,(%,)' A'($'0'*%,' DI!' 1' A'B,' %)5'%1)'' A 1' $>' G%)5'.,)''0,)'A,'%3;'3,(%,)'''':)%' DI6'%)5'A,'0,'%33%%)(',)'3%,)'$4;'2$)'' A%'5%'1%@')'3.,,@)'0'A' ,5)('B,A'A'$@'0' 5,)%'*,!' ! .,)'',)5 5',' 4 %C 5',)' %'(A) ',(%' ,)%((($%(C',)' 3%@,)''0'%' .)'C%!' ,;;5)('%'A'($',)' DH' BA,(A'A'A%5'3.,$C') ,(5'%'A%.,)''4 0'4'$)',)' DI!'P*0!'.!',!'33!' H!' D<)'<5!X')'0%('A'5,(3%)(,'%1)'' A'%,'%$A,,'%'$(A'%''')5'A 3'%)C'%13'''B,A'3;(,,)'A'(A) 'C'0'* $1;4$K'1.1)'3.,$''A,'0,'.C%'!

+.1%%>.M=>0>.<% 1'' <?+ %>!' 1# ?' D>' +' 0=>%!' <' ' ?C<% 1'' C>.' 1''+@>' C.1J0' 1'' .<=10!' <0D' +@>' <.C@ 10>??' 1'' 1E<!' +@>'A>.?=0<%' '. >0D' 1'' ?<$>%%<!' <%%' 1'' J@1B' >K>.C ?>D' C10? D>.<$%>' 0'%#>0C>' 1,>.' @>.' C1#0?>%?' @> .'.>A.>?>0+<+ 10?!' C1B$ 0>D' J +@' +@>' 1AA1.+#0>' ?><?10' F'' +@>' <AA% C<+ 10!' 1CC#.. 0=' <+' +@>' B1B>0+' J@>0' +@>' <AA.1<C@ 0=' +>.B 0<+ 10' 1'' +@>' 11. ?@' J<.' <%%1J>D' .11B' '1.' 0+>.>?+' 0' 1+@>.' 1$">C+?!' J.1#=@+' ?1' '<,1#.<$%>' <' C@<0=>' 0' +@>' D ?A1? + 10?' 1'' +@>' ?1,>.> =0?!' +@<+' +@>E' C10?>0+>D' +1' .>?#B>' +@>' 0>=1+ <+ 10' J +@' 1%#B$#?' 0' 0, +<+ 10' J<?' <CP C1.D 0=%E' ?>0+' +1' @ B' +1' .>A< .' +1' <0+<' !' <0D' <' C10? D>.<$%>' ?#B' A.1, D>D' '1.' @ ?' ?# +<$%>' >F# AB>0+' <0D' @ ?' >KA>0?>?' 10' +@>' .1<D T

1%#B$#?!' J@1' %1?+' 01' + B>' 0' <,< % 0=' @ B?>%'' 1'' +@ ?' J>%C1B>' 0+>%% =>0C>!' <.. ,>D' <+' +@>' C<BA' 0' ?><?10' +1' J +0>??' +@>' ?#..>0D>.' 1'' .<0<D<!' J@>0' >,>.E' @><.+!' ?J>%% 0=' J +@' >K#%+<+ 10' <+' +@>' +. #BP A@<0+' +>.B 0<+ 10' 1''+@>' J<.!' J<?' 0<+#.<%%E' D ?A1?>D' +1' >0+>.' J +@' =.><+>.' C10' D>0C>' 10' <' 0>J' C<.>>.' 1'' <D,>0+#.>' +' @ ?' 0+>., >J' J +@' +@>' H 0=' <0D' F#>>0' @>' 10C>' B1.>' >K@ $ +>D' +@>' <.=#B>0+?' 10' J@ C@' @ ?' @EA1+@>? ?' J<?' '1#0D>D' >' +@>0' >0D><P ,1#.>D' +1' ?+ B#%<+>' +@>' C#A D +E' 1'' @ ?' <#D >0C>' $E' A C+#. 0=' +@>' .><%B?' 1'' <0=' <. D' <+@<E!' J@ C@' @>' C10' D>0+%E' >KA>C+>D' +1' .><C@' $E' +@ ?' J>?+>.0' .1#+>!' 0' <%%' +@>' $<.$<. C' ?A%>0D1#.?' J@ C@' @<D' $>>0' ?@>D

Q' % ' 8, !' 5K 3%') ' 5,%' ((,5) % ' (!',!' ,4!' ' 1!'.,,,!' 33!' H' !' J' $>' (!' .,,,!' J' %.% ' * ((,)') G!' 8, ' 5 ' $. ' $)5 ' 5 'E,%' ' 1!',!') !' (!' F' ,4!',,!' (!' FFF,! J 8 %')>

' '

1,>.‘ +@>B‘ $E‘ +@>‘ % ,>%E‘ ‘<0C >?‘ 1‘‘ <.C1‘ 51%1‘ <0D‘ 1+@>.‘ +.<,>%%>.?‘ 1‘‘+@>‘ B DD%>‘<=>?L‘ <0D‘@>‘C10C%#D>D‘ J +@‘ <AA><% 0=‘ +1‘ <‘ @ =@>.‘A. 0C A%>!‘ $E‘ @1%D 0=‘ 1#+‘ +@>‘ A.1?A>C+‘ 1‘‘>K+>0D 0=‘ +@>‘ >BA .>‘ 1‘‘ +@>‘ .1??‘ 1,>.‘0<+ 10?‘ 1‘‘$>0 =@+>D‘@><+@>0!‘ J@ %>‘@>‘A.1A1?>D‘ +1‘ D>,1+>‘+@>‘A.1‘ +?‘ 1‘‘@ ?‘ >0+>.A. ?>‘+1‘ +@>‘".>C1,>.E‘ 1‘‘ +@>‘ 1%E‘ >A#%C@.>‘ @ ?‘ %<?+‘ >$#%% + 10!‘ J@ C@‘ B =@+‘ J>%%‘@<,>‘A<??>D‘‘1.‘‘<0<+ C ?B‘ 0‘ <‘%<+>.‘D<E!‘ <0D‘ = ,>0‘ <‘ , ? 10<.E‘ + 0=>‘ +1‘ @ ?‘ J@1%>‘ A.1">C+!‘ J<?‘01+‘F# +>‘?1‘A.>A1?+>.1#?‘ 0‘<0‘<=>‘ 0‘J@ C@‘W+@>‘ ?A . +‘1‘‘ +@>‘ C.#?<D>?‘ B =@+‘ $>‘ ?< D‘ ?+ %%‘ +1‘ % 0=>.!‘ <0D‘ +@>‘ .1B<0C>‘ 1‘‘ .>% = 10‘ @<D‘ 01+‘E>+‘ $>>0‘ D ?P A>%%>D‘ $E‘ ?1$>.‘ .><?10‘ @>‘ B1.>‘ +>BA>.<+>‘ ?#=P =>?+ 10‘ 1‘‘+@>‘D ‘‘#? 10‘ 1‘‘+@>‘ 1?A>%‘ J<?‘ J>%%‘?# +>D‘ +1‘ <‘‘>C+‘ ?<$>%%<!‘ 0‘ J@1?>‘@><.+‘+@>‘A. 0C A%>‘1‘‘D>P ,1+ 10‘ J<?‘D>>A%E‘?><+>DL‘<0D‘ J@1!‘ 0‘<%%‘@>.‘#0D>.P +<H 0=?!‘ ?>>B?‘ +1‘ @<,>‘ $>>0‘ ‘<.‘ %>??‘ ?>0? $%>‘+1‘+@>‘ ,#%=<.‘ BA#%?>?‘1‘‘<,<. C>‘ 1.‘ <B$ + 10!‘ +@<0‘ +1‘<0E‘ <.=#B>0+‘ C100>C+>D!‘ @1J>,>.‘ .>B1+>%E!‘ J +@‘ +@>‘ 0+>.>?+?‘ 1‘‘.>% = 10 T

B D?+‘<%%‘+@>?>‘A.1A + 1#?‘D>B10?+.<+ 10?‘+1J<.D?‘ 1%#B$#?!‘ <0‘ 1$?+<C%>‘ #0>KA>C+>D%E‘ <.1?>‘ 0‘ +@>‘ 0<+#.>‘ 1‘‘@ ?‘ D>B<0D?!‘ J@ C@‘ ?+ A#%<+>D‘ ‘1.‘@ B?>%‘‘ <0D‘@> .?‘+@>‘+ +%>‘<0D‘<#+@1. +E‘1‘‘<DB .<%‘<0D‘, -U‘ .1E‘1,>.‘<%%‘%<0D?‘D ?C1,>.>D‘$E‘@ B!‘ J +@‘10>M+>0+@‘ 1‘‘ +@>‘ A.1‘ +?‘ @ ?‘ J<?‘ D>>B>D‘ J@1%%E‘ 0<DB ?P ? $%>‘ >.D 0<0D!‘ J@1‘ @<D‘ %11H>D‘ J +@‘ C1%D‘ D ?M

Q‘ 8 %‘)5,%‘ ((,5) % ! 1! ,! 33! ! /! J)%)5‘ (! ,! ,4! ,! (! .,,,! J ,1‘ *)‘ 8, ‘ 5‘ 1, %) ‘ (! E,%‘‘5‘*)‘ %3! %.% F),!

+.#?+' 10' +@>' >KA>D + 10' '.1B' +@>' ' .?+!' J<?' ?#AA1.+>D'
/' +@>' .>B10?+.<0C>?' 1'' <%<,>.<!' +@>' 0>J' <.C@P
$?@1A' 1'' .<0<D<!' J@1' D>C%<.>D' +@<+' Q' ?#C@' D>P
B<0D?' ?<,1#.>D' 1'' +@>' @ =@>?+' D>=.>>' 1'' <..1=<0C>!'
<0D' J1#%D' $>' #0$>C1B 0=' 0' +@> .' @ =@0>??>?' +1'
=.<0+' +1' <' 0>>DE' '1.> =0' <D,>0+#.>. R' 1%#B$#?!'
@1J>,>.!' ?+><D %E' .>? ?+>D' >,>.E' <++>BA+' +1' 0D#C>'
@ B' +1' B1D 'E' @ ?' A.1A1? + 10?' 0' +@ ?' =.1#0D' +@>'
C10'>.>0C>?' J>.>' <$.#A+%E' $.1H>0' 1''!' <0D' @>' 10C>'
B1.>' +#.0>D' @ ?' $<CH' #A10' +@>' A<0 ?@' C1#.+!' .>P
?1%,>D' .<+@>.' +1' '1.>=1' @ ?' ?A%>0D D' <0+ C A<+ 10?' 1''
D ?C1,>.E' <+' +@>' ,>.E' B1B>0+' J@>0' +@>' C<.>>.' ?1'
%10=' ?1#=@+' J<?' +@.1J0' 1A>0' +1' @ B!' +@<0' ?#..>0D>.'
10>' 1'' +@>' @101#.<$%>' D ?+ 0C+ 10?' D#>' +1' @ ?' ?>.P
, C>?' @ ?' %<?+' <C+' ?' A>.@<A?' +@>' B1?+' .>B<.H<$%>'
>K@ $ + 10' 0' @ ?' J@1%>' % '>' 1''+@<+' A.1#D' #0E >%D 0='
?A . +' J@ C@' ?#?+< 0>D' @ B' +@.1#=@' ?1' B<0E' E><.?' 1''
+. <%!' <0D' >0<$%>D' @ B' <+' %>0=+@' +1' <C@ >,>' @ ?' =.><+'
>0+>.A. ?>' 0' +@>' '<C>' 1'' >,>.E' 1$?+<C%>' J@ C@' B<0'
<0D' <+#.>' 1AA1?>D'+1' + T

@>' B ?#0D>.?+<0D 0=' J<?' 01+' ?#''>.>D' +1' $>' 1''
%10=' D#.<+ 10' 1%#B$#? ?' '. >0D?!' <0D' >?A>C <%%E'
1# ?' D>' +' 0=>%!' .>B10?+.<+>D' J +@' +@>' F#>>0' 10'
+' >?>' A.1C>>D 0=?' 0' +@>' B1?+' ><.0>?+' B<00>.' >'
'.<0H%E' +1%D' @>.' +@<+' 1%#B$#? ?' D>B<0D?!' '' @ =@!'
J>.>' <+' %><?+'C10+ 0=>0+' 10' ?#CC>??!' J@>0' +@>E' J1#%D'
$>' J>%%' D>?>.,>DL' +@<+' '' @>' '< %>D!' @>' .>F# .>D' 01P
+@ 0=' >' >KA<+ <+>D' 10' @ ?' F#<%' C<+ 10?' '1.' +@>

#0D>.+<H 0=!' ?1' ? =0<%' <?' +1' >0?#.>' 0' U ' A.1$<$ % +E'
+@>' A<+.10<=>' 1'' ?1B>' 1+@>.' B10<.C@!' J@1' J1#%D'
.><A' +@>' '.# +?' 1'' @ ?' D ?C1,>. >?L' <0D' @>' ,>0+#.>D'
+1' .>B 0D' +@>' F#>>0' +@<+' @>.' A.>?>0+' A1% CE' J<?' 01+'
0' <CC1.D<0C>' J +@' +@>' B<=0<0 B1#?' ?A . +' J@ C@'
@<D' @ +@>.+1' B<D>' @>.' +@>' .><DE' A<+.10' 1''=.><+' <0D'
@>.1 C' >0+>.A. ?>' <.' '.1B' $> 0=' D ?A%><?>DU' ?<P
$>%%<' J<?' B1,>D' $E' @ ?' @10>?+' >%1F#>0C>' @>' C10P
+>B A%<+>D' +@>' A.1A1?<%?' 1'' 1%#B$#?' 0' +@> .' +.#>'
% =@+L' <0D!' .>'#? 0=' +1' @><.H>0' <0E' %10=>.' +1' +@>'
?#==>?+ 10?' 1'' C1%D' <0D' + B D' C1#0?>%%1.?!' ?@>' =<,>'
J<E' +A' +@>' 0<+#.<%' BA#%?>?' 1'' @>.' 1J0' 01$%>' <0D'
=>0>.1#?' @><.+' Q' ' J %%' <??#B>' +@>' #0D>.+<H 0=!R'
?< D' ?@>!' W' '1.' BE' 1J0' C.1J0' 1'' <?+ %>!' <0D' <B'
.><DE' +1' A<J0' BE'">J>%?' +1' D>'.<E' +@>' >KA>0?>?' 1''
+!' ''+@>' '#0D?' 0' +@>' +.><?#.E' ?@<%%' $>' '1#0D' 0<D>P
F#<+> R' @>' +.><?#.E' @<D' $>>0' .>D#C>D' +1' +@>' %1J>?+'
>$$' $E' +@>' %<+>' J<.L' $#+' +@>' .>C> ,>.!' + 0=>%!' <DP
,<0C>D' +@>' ?#B?' .>F# .>D' '.1B' +@>' .<=10>?>' .>,>P
0#>?' D>A1? +>D' 0' @ ?' @<0D?' .<=10!' @1J>,>.!' J<?'
01+' C10? D>.>D' <?' <D,>0+#. 0=' 0' +@>' >KA>D + 10!'
J@1?>' C@<.=>?' <0D' >B1%#B>0+?' J>.>' .>?>.,>D' >KC%#P
? ,>%E' '1.' <?+ %> T

1%#B$#?!' J@1' J<?' 1,>.+<H>0' $E' +@>' .1E<%' B>?P
?>0=>.' <+' <' '>J' %><=#>?' D ?+<0C>' 10%E' '.1B' .<0<D<!'
>KA>. >0C>D' +@>' B1?+' C1#.+>1#?' .>C>A+ 10' 10' @ ?'
.>+#.0' +1' <0+<' -0' J@>.>' <' D>' 0 + ,>' <..<0=>B>0+

/!!/!''). '0 ** ./)4' (()' 04' ./' 6!')4/'*'8'
/*' ' =' ' *' , - % (C' +, - (6'!'' 04(! ' ./ '0
04' ./' %/,(%).(# =' '). '0'*'8'+,
! +++ ' +++ -' /!)').(

J<?' C1OC%#D>D' J +@' +@>' A<0 ?@' ?1,>.> =0?!' A. %' 9!'
' E' +@>' +>. B?' 1'' +@>' C<A +#%<+ 10!' >.D 0<OD'
N<OD' ?<$>%%<!' <?' %1.D?' 1'' +@>' 1C><0M?><?!' C1O?+ +#+>D'
@. ?+1A@>.' 1%#B$#?' +@> .' <DB .<%!' , C>.1E!' <OD'
=1,>.01.M=>0>.<%' 1'' <%%' ?#C@' ?%<OD?' <OD' C1O+ 0>0+?'
<?' @>' ?@1#%D' D ?C1,>.' O' +@>' J>?+>.O' 1C><0!' J +@'
+@>' A. , %>=>' 1'' 01B 0<+ 0=' +@.>>' C<OD D<+>?!' '1.'
+@>' ?>%>C+ 1O' 1'' 1O>' $E' +@>' C.1J0!' '1.' +@>' =1,>.OP
B>0+' 1'' ><C@' 1'' +@>?>' +>.. +1 >?' >' J<?' +1' $>
,>?+>D' J +@' >KC%#? ,>' . =@+' 1'' "#. ?D C+ 1O' 1,>.' <%%'
C1BB>.C <%' +.<0?<C+ 1O?' J +@ O' @ ?' <DB .<%+E' @>'
J<?' +1' $>' >0+ +%>D' +1' 1O>M+>0+@' 1'' <%%' +@>' A.1D#C+?'
<OD' A.1' +?' J +@ O' +@>' % B +?' 1'' @ ?' D ?C1,>. >?!' <OD'
<0' <DD + 1O<%' > =@+@' A.1, D>D' @>' ?@1#%D' C1O+. $#+>'
1O>M> =@+@' A<.+' 1'' +@>' >KA>0?>' E' <' ?#$?>F#>0+'
1.D 0<0C>!' +@>' 1'' C <%' D =0 + >?' <$1,>' >0#B>.<+>D'
J>.>' ?>++%>D' 1O' @ B' <OD' @ ?' @> .?' '1.' >,>.!' J +@' +@>'
A. , %>=>' 1''A.>' K 0=' +@>' + +%>' 1'' 1O' +1' +@> .' 0<B>?!'
J@ C@' @<D' 01+' +@>0' D>=>0>.<+>D' 0+1' <0' <AA>%%<+ 1O'
1'' B>.>' C1#.+>?E T

') ' B ' A ' % %)' 1) ' (13 5' A%)'
?<$>%%<' A.>A<.>D!' J +@' @>.' C@<.<C+>. ?+ C' A.1BA+P
0>??!' +1' '1.J<.D' +@>' >KA>D + 1O' $E' +@>' B1?+' >'% C >0+'
B><?#.>?' .D>.?' J>.>' ?>0+' +1' >, %%>' <OD' +@>' 1+@>.'
A1.+?' 1'' 0D<%#? <' +1' '#.0 ?@' ?+1.>?' <OD' 1+@>.' <.+ P
C%>?' .>F# ? +>' '=.' +@>' ,1E<=>!' '.>>' 1'' D#+E!' <OD' <+' <?'
%1J' .<+>?' <?' A1?? $%>' @>' '%>>+!' C1O? ?+ 0=' 1''+@.>>

Q' %.% ' * ((!'5 'E,%'!' 3!' D !J %,%)%' 8, '5 ' %>'
1!M,,!' (!' ,3 1%!' !' ' 3%,,%' 1!,,!' 3!' 6!
!J 'N$,'%')% ' 5 ' ., %

F * ‘ ‘ *

,>??>%?!‘ J<?‘ +1‘ ?< %‘ '.1B‘ +@>‘ % ++%>‘ A1.+‘ 1’‘5<%1?‘ 0‘ 0D<%#? <!‘ J@ C@‘ @<D‘ $>>0‘ C10D>B0>D!‘ '1.‘ ?1B>‘ D>% 0F#>0CE!‘ +1‘ B< 0+< 0‘ +J1‘ C<.<,>%?‘ '1.‘ <‘ +J>%,>M!‘ B10+@‘ '1.‘ +@>‘ A#$% C‘ ?>., C>‘ @>‘ +@ .D‘ ,>??>%‘ J<?‘ '#.0 ?@>D‘ $E‘ +@>‘ <DB .<%!‘ < D>D!‘ <?‘ +‘ J1#%D‘ ?>>B!‘ 0‘ D>'.<E 0=‘ +@>‘ C@<.=>?‘ $E‘ @ ?‘ '. >0D‘ +@>‘ #<.D <0‘ 1’‘ <‘ <$ D<!‘ <0D‘ +@>‘ 5 0G10?!‘ <‘ '<B %E‘ 0‘ 5<%1?‘ %10=‘D ?+ 0=# ?@>D‘ '1.‘ +?‘ >0+>.A. ?>‘ <B10=‘ +@>‘ B<. P 0>.?‘ 1’‘ +@<+‘ <C+ ,>‘ C1BB#0 +E‘ +@‘ +@> .‘ <?? ?+P <0C>!‘ 1%#B$#?‘ J<?‘ >0<$%>D‘ +1‘ ?#.B1#0+‘ +@>‘ D ?P 0C% 0<+ 10!‘ <0D‘ 0D>>D‘ 1A>0‘ 1AA1?+ 10!‘ B<0 '>?+>D‘ $E‘ +@>‘ 0D<%#? <0‘ B<. 0>.?‘ +1‘ @ ?‘ A>. %1#?‘ ,1E<=>L‘ ?1‘ +@<+‘ 0‘ %>??‘ +@<0‘ +@.>>‘ B10+@?‘ @ ?‘ % ++%>‘ ?F#<D.10‘ J<?‘ >F# AA>D‘ '1.‘ ?><‘ ‘ ?#'' C >0+‘ >, D>0C>‘ 1’‘ +@>‘ >K+.>B>‘ #0A1A#%<. +E‘ 1’‘ +@>‘ >KA>D + 10‘ ?‘ <''1.D>D‘ $E‘ <‘ .1E<% 1.D 0<0C>‘ 1’‘ +@>‘ +@‘ 1’‘ A. %!‘ A.1 0 ? 0=‘ A.1+>C+ 10‘ +1‘ <%% A>.?10?‘ J@1‘ ?@1#%D‘ >B$<.H‘ 0‘ +‘ '.1B‘ C. B 0<% A.1?>C#+ 10‘ 1’‘ J@<+>,>.‘ H 0D‘ #0+ %‘ +J1‘ B10+@?‘ <'+>.‘ +@> ‘ .>+#.0‘ @>‘ <.B<B>0+‘ C10P ? ?+>D‘ 1’‘ +J1‘ C<.<,>%?!‘ 1.‘ % =@+‘ ,>??>%?‘ J +@1#+‘ D>CH?&!‘ <0D‘ <‘ +@ .D‘ 1’‘ %<.=>.‘ $#.D>0‘ @>‘ +1+<% 0#B$>.‘ 1’‘ A>.?10?‘ J@1‘ >B$<.H>D‘ <B1#0+>D‘ +1‘ 10>‘ @#0D.>D‘ <0D‘ +J>0+EL‘ <0D‘ +@>‘ J@1%>‘ C@<.=>?‘ 1’‘ +@>‘ C.1J0‘ '1.‘ +@>‘ >KA>D + 10‘ D D‘ 01+‘ >KC>>D‘ 9! ‘ '%1. 0?‘ @>‘ '%>>+‘ J<?‘ 0?+.#C+>D‘ +1‘ H>>A‘ C%><.‘ 1’‘ +@>‘ '. C<0‘ C1<?+!‘ <0D‘ 1+@>.‘ B<. + B>‘ A1??>?? 10?‘ 1’‘ 51.+#=<%‘ +‘ %>0=+@!‘ <%% +@ 0=?‘ $> 0=‘ 0‘ .><D 0>??!‘ 1%#B$#?‘ <0D‘ @ ?‘ J@1%>‘ C.>J‘ A<.+11H‘ 1’‘ +@>‘ ?<C.<B>0+‘ <0D‘ C10'>??>D‘ +@>B?>%,>?!‘ <'+>.‘ +@>‘ D>,1#+‘ B<00>.‘ A.<CP + ?>D‘ $E‘ +@>‘ <0C >0+‘ A<0 ?@‘ ,1E<=>.?‘ J@>0‘ >0=<=>D

0 <0E BA1.+<0+ >0+>.A. ?>L <0D 10 +@> B1.0 0=1 +@> .D 1 #=#?+ 6:7!+@> 0+.>A D 0<, =<+1.! $ DP D 0=<D >#+1 +@> %D 1.%D! %<#0C@>D '1.+@ 10 +@<+ #0'<+@1B>D J<?+>1 J<+>.? J@>.> 01 ?< @<D $>>0 >,>.?A.><D $>'1.> T

+ ? BA1?? $%> +1 A>.#?> +@> ?+1.E 1 1%#B$#? J +@1#+ <?? =0 0= +1 @ B <%B1?+ >KC%#? ,>%E +@> =%1 E 1 @ ?=.><+D ?C1,>.EL '1.! '.1B +@> ' .?+ B1P B>0+ 1 +? C10C>A+ 10 +1M +@<+ 1 +? ' 0<% >K>C#+ 10! @> J<? >0C1#0+>.>D $E >,>.E ?A>C >? 1 B1.+ ' C<+ 10 <0D >B$<..<??B>0+! J +@ ?C<.C>%E <@><.+ +1 C@>>.1 <@<0D +1 @>%A @ .< @1?> B1.> >0% =@+>0>D A>.M

L ! % C 4$ (%),(, . 4 * >), 6/D (! ,4! ,! J %> .%, * ((,) 1! ,,! * ! ,3 1! ! / I H ! ! J 8 %)5,% ((,5) % (! ,! ,4! ,! (%3! ,F! J)%); 5 *) 8, 5 1, %) (%3! F, .! J $) G 8, 5 $. $)5 ,4! ,,! (! FF,,,! J)G), . .,4, 8, ! ,4! ,! (%3! .,! J : 1% % 8, 5 %)5,% !(%3! F.! A F3 ,),), A F B,) 1) '.) %5L 1, ,) ' A 3 ., $ 5, (. , 0 A A1) BA,(A B 1%5 ,) 1$(A A,'A % ,; $5 ! 8$14 5 A% B A B) A 3 4%4, , C >

0 $(A 5, (. , 1%5 ,) %)% B 3% 0 A %) ,(BA A (%5 A %)5 (%)5'%)5' :) %)5 %00 5 5 A . C%' 1%)C ,) 1 5,% % ,) % 1 5 ; % 5, %)(0 1 %(A A !

P:T ' %3A, 5$ $. %$ *) ,;)) 1! ,,! 3! I 2!X A 3$4 ,(%,) 0 A , ',)% (%)5,)%.,%) ! P 0 BA,(A ,13 0 ( ) ,(%)5 (,)) C A%. A, A 0 $)5 A , B%C ,) A B 5X 4C A C% (, C 0 A)); ,2$% , % * 3)A%') , % 1% 0 A 5 3 ,) <%)5', , 0 $)% A%, , , 4 ( )5$(5 ,15 %$ 3,(BA,(A 1$) $, F ($; ,),), A 1 0%, A0$ %)5 %4 1%)) ! 1%C 4 5 $4 ; 5 A B . BA A A 5 (%; %,) 0 A 3 3 ($ A% 8, B% A @) B 5' 0 A (%)5,)%.,%) . C%' ,) % 3 4%4, , C BA,(A 3 13 5 A F3 5, ,) 0 * 14 [(%) . 4 %4, A 5! 8, 3 ;)% A, C 0$), A) ' ,))% ,5)(A ( ) % C!

4 (9 04! ?)&:'!/45/ (!< (!) *() .4 () ')). (64'=/ /)/!&. ((%6=%0 ./8*4/.

?1O?!' J@1B!' D#. O=' @ ?' %1O=' .>? D>OC>' O' A< O!' @>' ?#CC>>D>D' O' O+>.>?+ O=' O' @ ?' >KA>D + 1O!' %11H>D' +1' +' A.1$<$%E' <?' +1' +@>' B><O?' 1'' ?1%, O=' <' D#$ 1#?' A.1$%>B!' J +@' +@>' ?<B>' ?1.+' 1'',<=#>' <OD' ?C>A+ C<%' C#. 1? +E' <?' +1' +?' ?#CC>??'#%' .>?#%+!' J +@' J@ C@' J>' C1O+>BA%<+>!' O' 1#.' D<E!' <O' <++>BA+' +1' <.. ,>' <+' +@>' 1.+@MJ>?+' A<??<=>' 1J' '>>$%>' J<?' +@>' O+>.>?+' >KC +>D!' >,>O' <B1O=' +@1?>' J@1' '.1B' +@> .' ?C >OC>' <OD' ? +#<+ 1O' J1#%D' ?>>B' +1' @<,>' +@> .' <++>O+ 1O' B1?+' O<+#.<%%E' D.<JO' +1J<.D?' +!' B<E' $>' O'>..>D' '.1B' +@>' O'.>F#>OCE' 1''<%%#? 1O' +1' +' O' +@>' C1..>P ?A1OD>OC>' <OD' 1+@>.' J. + O=?' 1'' +@<+' + B>!' A.>, 1#?' +1' +@>' <C+#<%' D ?C1,> E' 5>+>.' <.+E.!' 1O>' 1'' +@>' B1?+' <CC1BA% ?@>D' ?C@1%<.?' 1''+@>' A>. 1D!' J@1?>' .>? PD>OC>' <+' +@>' <?+ % <O' C1#.+' B#?+' @<,>' '#%%E' OP ?+.#C+>D' @ B' O' +@>' D>? =O?' 1'' 1%#B$#?!' <OD' J@1?>' OF# ? + ,>' B OD' %>D' @ B' ?#$?>F#>O+%E' +1' +<H>' +@>' D>>A>?+' O+>.>?+' O' +@>' .>?#%+?' 1''@ ?' D ?C1,>. >?!' D1>?' O1+!' <?' '<.'<?' '<B' <JU.>!' <%%#D>' +1' @ B' O' <OE' A<.+' 1'' @ ?' ,1%#B O1#?' C1..>?A1OD>OC>' J +@' +@>' %><.O>D' O>O' 1'' @ ?' + B>!' A.>, 1#?' +1' +@>' ' .?+' >KA>D + 1O' @>' C1BB1O' A>1A%>' .>=<.D>D' O1+' B>.>%E' J +@

,)' A'0 B,)'') 4'. ' O' 3, '5K) ',' $'(%11,)' *A,%4 %<

* ' 5%' (' (A% ' 5 ,)'))' (!)' ,13 1%')%),1 ') >' ' < %' '4 K% 1'% '4 M 3 '

%)) ' ', ,') ' O%,(A' (>' (5'4,% 1'3 3 %' 0 %' (%;)%!

* ,' $)'% %',)' 3 ' 1 5,' ,)5 '), $ 3% 5, 3 GG' K,)(,% 3 1 (A 1)5' ,' .$ ' ' ' (' ,' ','),) , 1 G" ' +# '> #!! ! ' ' (# H ,1 ' % ',!*%)G) 'F,,!

<A<+@E!' $#+' J +@' +>..1.!' +@>' A.1?A>C+' 1'' <' ,1E<=>' +@<+' J<?' +1' +<H>' +@>' B<. 0>.' '.1B' +@>' ?<'>' <0D' A%><P ?<0+' ?><?' 0' J@ C@' @>' J<?' <CC#?+1B>D' +1' 0<, =<+>!' <0D' ?>0D' @ B' .1, 0=' 10' +@>' $1#0D%>??' J %D>.0>??' 1'' J<+>.?!' J@ C@' +.<D + 10' <0D' ?#A>.?+ + 1#?' '<0CE' @<D' A>1A%>D' J +@' 00#B>.<$%>' '1.B?' 1''@1..1.

+' ?' +.#>' +@<+' 1%#B$#?' >KA>. >0C>D' <' B1?+' @101#.<$%>' .>C>A+ 10' <+' +@>' <?+ % <0' C1#.+L' ?#C@' <?' 0<+#.<%%E' '%1J>D' '.1B' +@>' $>0>,1%>0+' ?A . +' 1'' ?<P $>%%<!' <0D' @>.'"#?+' <AA.>C <+ 10' 1'' @ ?' A#.>' <0D' >%>P ,<+>D' C@<.<C+>.' $#+' +@>' F#>>0' J<?' +11' % ++%>' 1'' <' A.1' C >0+' 0' ?C >0C>' +1' $>' <$%>' +1' >?+ B<+>' +@>' B>. +?' 1'' @ ?' @EA1+@>? ?L' <0D!' <?' B<0E' 1'' +@1?>' 10' J@1?>' "#D=B>0+' ?@>' %><0>D' D>>B>D' +' C@ B>. C<%!' +' ?' A.1P $<$%>' +@<+' ?@>' 0>,>.' >0+>.+< 0>D' <' D>>A' C10, C+ 10' 1'' +?' +.#+@'L' <+' %><?+!' 01+' >01#=@' +1' J<..<0+' +@>' % $>.<% >KA>0D +#.>' J@ C@' ?@>' 0>,>.' .>'#?>D' +1' ?C@>B>?' 1'' .><% BA1.+<0C>' @ ?' ?' C>.+< 0%E' 0'>..>D' $E' +@>' A<%+.E' <B1#0+' <C+#<%%E' >KA>0D>D' 10' +@>' <.B<B>0+!' '<.' 0'>. 1.' +1' +@<+' <AA.1A. <+>D' +1' +@>' >F# AB>0+' 1'' +J1' ?>,>.<%' '%>>+?' 0' +@>' C1#.?>' 1'' +@>' %<+>' J<.' '1.' <' '1.> =0' >KA>D + 10!' <?' J>%%' <?' 1'' +@<+' J +@' J@ C@!' 0' +@>' >0?# 0=' E><.!' ?@>' '1%%1J>D' #A' 1%#B$#?' ?' D ?C1,>. >?

#+' J@ %>!' 10' <' .>, >J' 1'' +@>' C .C#B?+<0C>?!' J>' <.>' %>D' B1.>' <0D' B1.>' +1' <DB .>' +@>' C10?+<0CE' <0D' #0C10F#>.<$%>' ?A . +' J@ C@' C<.. >D' 1%#B$#?' , C+1P . 1#?' +@.1#=@' <%%' +@>' D '' C#%+ >?' 1'' @ ?' #0D>.+<H 0=!' J>' B#?+' .>B>B$>.!' 0' "#?+ C>' +1' ?<$>%%<!' +@<+!' <%P +@1#=@' +<.D %E!' ?@>' D D' 0' '<C+' '#.0 ?@' +@>' .>?1#.C>?

>??>0+ <% +1' +?' >K>C#+ 10L' +@<+' ?@>' #0D>.+11H' +@>' >0+>.A. ?>' J@>0' +' @<D' $>>0' >KA% C +%E' D>C% 0>D' $E' 1+@>.' A1J>.?!' <0D' J@>0' A.1$<$%E' 010>' 1+@>.' 1 '' +@<+' <=>' J1#%D' @<,>' $>>0' '1#0D' +1' C1#0+>0<0C>' +L' <0D' +@<+!' <'+>.' 10C>' A% =@+ 0=' @>.' '< +@' +1' 1%#B$#?!' ?@>' $>C<B>' @ ?' ?+><DE' '. >0D!' ?@ >%D 0=' @ B' <=< 0?+' +@>' C<%#B0 >?' 1 '' @ ?' >0>B >?!' .>A1? 0=' 0' @ B' +@>' B1?+' =>0>.1#?' C10' D>0C>!' <0D' ?>., 0=' @ B' 0' +@>' B1?+' <CC>A+<$%>' B<00>.' $E' ?#AA%E 0=' <BA%>' .>?1#.C>?' '1.' +@>' A.1?>C#+ 10' 1'' @ ?' =%1. 1#?' D ?C1,>. >? T

* 14 ',)'%' 'B , ; ,')('%)5') 'C<%)5'BA, ')')'A,' A, 5'. C%' ' 3%C' . C') ' ',)'A,',') %)(' %)'A) ' A % 0 ' ,9 ' ' B%' F3%,%,)'') C')' A',); A' 00 ($%' 3%)%'' BA,(A' ( ).),)('%)5'('A 'A,'A; A' A%5' F3 ,)(5' 0 1' A') '%33 . 5', ')' A' ( ); 2$)!' Y')' A' 1,5 ' 0' A' %C'%)5'%. ', '%' A' $3; ') %' ,)(5$,C [' %C' A' 3 ',)'A '3 B ![' '*% %' Y' A' 1,'AC',)0$ 5',) ' A' %' 1%'5 ' ,)(,3 ' !'?$%)' 2$)' 1C' %5C' A' 3, ,' 0',); %3!' %.% ' 1!',!3!' !

',') B'1 ' A%)' A, C'C % ' ,)(' A' 3%), A' ' .)1)') $ 5')' % ,)')%)5 G'5' %.% ')' 0' A' 1 ' 1,;))' (A % ' 0' A' ($) C'B, A' A' (% ' 0' F3 ,)'' A' 3$4,(' %(A,. '0 ' A' 3$ 3 ' 0' ((,)'',)0 1%,)' %,. ' ' A' . C%' '%)5'5, (. , ' 0' A' % C' 3%), A')%.,'% !')' I 6' A' %.% ' '%.' ' A'B 5' A'0, '0$, ' 0'A,',)5 0%,; '%4 ' %(A ',)' B'. $1 ' A'(11)(1)' 0'%' , ' (13 A)5,)'' '3,.% '+ $)% ' C%' 5,)%)('%)5' A' ,',)%'5 ($1)', $ %,.' 0' A'5, (. C' 0' 1 ,(%< A' B'. $1 '% '5 . 5' F($,. C' ' A'%5.) $ '%)5'3 ;)%'A, C' 0' * 14 '%)5' 1$ ' 4' '% 5 5'%' A') C' %$A) ,(' 4%,')' BA,(A' %)C') ,(' 0' A' ' %')%.,'% ' (%)' A %0 ' !' $)% C' !' .,)'K'., ,' ' 3%,)'%' A,

5 ' ;

= ' ' 8 ' ? 9 ' ' !

6 : 7

2 3 ' +@>' A<0 ?@' ?1 , >. > =0?' J >. >' D>+< 0>D' $>P '1. >' .<0<D<!' +@>E' A#$% ?@>D' +@> .' B>B1.<$%>' <0D' B1?+' D ?<?+.1#?' >D C+' <=< 0?+' +@>' / > J ?L' 0?C. $ 0=' +!' <?' +' J >. >!' J +@' +@>' ?<B>' A>0' J@ C@' D. >J' #A' +@>' =%1. 1#?' C<A +#%<+ 10' 1 '' .<0<D<!' <0D' +@>' +. ><+E' J +@' 1%#B$#?' @>' .><D>.' @<?' $>>0' B<D>' <CF#< 0+>D' 0' <' A. >C>D 0=' C@<A+>.' J +@' +@>' A. 1?A>. 1#?' C10D + 10' 1 '' +@>' / > J ?' 0' +@>' A>0 0?#%<!' <0D' +@>' A. >>B 0>0+' C10? D>. <+ 10' J@ C@' +@>E' <++< 0>D' +@>. >' $>E10D' <0E' 1+@>.' A<. +' 1 '' @. ?+>0D1B ' @>' >0 , E' .< ?>D' $E' +@> .' A. 1?A>. +E!' C1B$ 0>D' J +@' +@>' @ =@' .>% = 1#?' >KC +>B>0+' H 0D%>D' 0' +@>' %10=' J <.' J +@' +@>' 0' D>%!' D .>C+>D' +@>' +>. . $%>' <. B' 1 '' +@>' 0F# ? + 10!' <?' @<?' $>>0' <%. ><DE' ?+<+>D!' <=< 0?+' +@ ?' #0'1. +#0<+>' A>1A%>' L' $#+' +@>' .>?#%+' ?@1J>D' +@>' '< %#. >' 1 '' +@>' >KA>. B>0+!' ? 0C>' C1BA<. <+ , >%E' '>J' C10 , >. ? 10?!' <0D' +@1?>' '. >P F#>0+%E' 1 '' <' ?#?A C 1#?' C@<. <C+>. !' J >. >' >' '>C+>D!' J @ %>

= ‘ ‘ 8 ‘ ? 9 ‘ ‘ !‘

+@>‘ =.><+‘ B<??‘ ?+ %%‘ B< 0+< 0>D‘ <‘ A>.+ 0<C 1#?‘ <+P +<C@B>0+‘ +1‘ <0C >0+‘ >..1.? T

0D>.‘ +@>?>‘ C .C#B?+<0C>?!‘ +@>‘ A1A#%<.‘ 1D #B!‘ 0'%<B>D‘ $E‘ +@>‘ D ?C10+>0+‘ 1'‘ +@>‘ C%>.=E‘ <+‘ +@>‘ .>? ?+<0C>‘ J@ C@‘ +@>E‘ >0C1#0+>.>D‘ 0‘ +@>‘ J1.H‘ 1'‘ A.1?>%E+ ?B!‘ =.<D#<%%E‘ J<K>D‘ ?+.10=>.‘ <0D‘ ?+.10=>.‘ <=< 0?+‘ +@>‘ #0@<AAE‘ ?.<>% +>?‘ %D‘ +.<D + 10?!‘ <?‘ 1%D‘ 0D>>D‘ <?‘ +@>‘ +@ .+>>0+@‘ <0D‘ '1#.+>>0+@‘ C>0MU +#. >?!‘ J>.>‘ .>, ,>D!‘ <0D‘ C@<.=>D‘ 10‘ +@>‘ A.>?>0+‘ =>0>.<+ 10!‘ J +@‘ <%%‘ +@>‘ D>+< %?‘ 1'‘ A%<C>‘ <0D‘ <C+ 10‘ @. ?+ <0‘ C@ %D.>0‘ J>.>‘ ?< D‘ +1‘ $>‘ H D0<AA>D!‘ 0‘ 1.D>.‘ +1‘ $>‘ C.#C ' >D‘ 0‘ D>. ? 10‘ 1'‘ +@>‘ <, 1#.L‘ +@>‘ @1?+‘ J<?‘ >KA1?>D‘ +1‘ +@>‘ =.1??>?+‘ 0D =0 + >?L‘ <0D‘ A@E? C <0?‘ <0D‘ <A1+@>C<. >?!‘ J@1?>‘ ?C >0C>‘ J<?‘ A<.P + C#%<.%E‘ C#%+ ,<+>D‘ $E‘ +@>‘ />J?‘ 0‘ +@>‘ B DD%>‘ <=>?!‘ J>.>‘ <CC#?>D‘ 1'‘ A1 ?10 0=‘ +@> .‘ @. ?+ <0‘ A<+ >0+?‘ 1‘ .#B1#.‘ J<?‘ +11‘ <$?#.D‘ '1.‘ +@>‘ ><?E‘ C.>D#% +E‘ 1'‘ +@>‘ A>1A%>‘ W @>‘ ?.<>% +>?‘ J>.>‘ C@<.=>D‘ J +@‘ +@>‘ B1.>‘ A.1$<$%>‘ 1''>0C>‘ 1'‘ <++>B A+ 0=‘ +1‘ C10,>.+‘ +1‘ +@> .‘ 1J0‘ '< +@‘ +@>‘ ‘ * " ‘ <?‘ J>%%‘ <?‘ +1‘ .>C%< B‘ ?#C@‘ 1'‘ +@> .‘ 1J0‘ .<C>‘ <?‘ @<D‘ .>C>0+%E‘ >BP $.<C>D‘ @. ?+ <0 +E‘ ‘ =.><+‘ ?C<0D<%‘ J<?‘ 1CC<? 10>D

L‘ ‘ ,‘ %‘ 3 0‘ 0‘ A‘ A,'A‘ % C K‘ %1)'‘ 1%)C‘ ,1,%‘ ( ) ,5 %,)‘ ,)‘ BA,(A‘ $(A‘ ;) ‘ 4C‘ ( ) 13 %, ‘ %00 5‘ % , ‘ %‘ B ‘ B, ,)'‘ ‘ 1; A‘ $‘ @ C‘ ‘ A‘ 3 3$%‘ 5,;‘ 4%(‘*A , ,%),C‘B ‘A 5‘ A%‘ $1‘ %'%,) ‘ A‘ ? B ! Y‘ *51‘ A ‘ 0‘ A%‘)$14 ‘ .% G‘)%12$‘ .,5) ‘ ?$5)$)‘ .,%‘ %)5‘ $'% ‘B ‘3 ,.% ‘ %4,5‘ (11 (,‘ 2$,‘ A%(‘ A T‘ (%, ‘ 0‘ A‘ 2$)!‘ 1!‘ 1,‘,)‘ 8, 3%),% " # ‘ + &2‘ 5‘ %‘ %‘ (%5‘ 5‘ 8, ! 1!‘ ! & ! # ‘ 3$,1 $1‘ %),>‘ .,!‘ $! I! 1 ‘ ($13,‘ %(‘ 5$(,<2 \(!‘)‘ ,)(,5)%‘ F3 ,)‘ 0 3$‘ 3, %$1‘ 3! F(,,!

<%?1' /' +@>' 0+>.B<.. <=>?!' J@ C@' ?+ %' 1CC<? 10<%%E' +11H' A%<C>!' $>+J>>0' />J?' <0D' @.?+ <0?L' J@ C@' %<?+' C10D>?C>0D>D' +1' .>A<.' +@> .' D %<A D<+>D' '1.+#0>?' $E' +@>?>' J><%+@E' <%% <0C>?!' +@1#=@' <+' +@>' >KA>0?>' 1'' +@> .' ,<#0+>D' A#. +E' 1''$%11D T

@>?>' ,<. 1#?' 1''>0C>?' J>.>' #.=>D' <=< 0?+' +@>' />J?' J +@' =.><+' A>.+ 0<C +E' $E' +@> .' >0>B >?!' <0D' +@>' ?1,>.> =0?' J>.>' BA1.+#0>D' +1' <D1A+' <' B1.>' .=1.1#?' A1% CE' @>' 0F# ?+1.?' 0' A<.+ C#%<.!' +1' J@1B' +@>' J1.H' 1'' C10,>.? 10' @<D' $>>0' ?A>C <%%E' 0+.#?+>D!' .>A.>?>0+>D' +@>' 0C1BA>+>0C>' 1''<%%' %>0 >0+' B><?#.>?' +1' +@>' >0D' A.1A1?>D' @>E' <??>.+>D' +@<+' +@>' 10%E' B1D>' %>'+' '1.' +@>' >K+ .A<+ 10' 1''+@>' />J ?@' @>.>?E!' J<?' +1' >.<D C<+>' +@>' ?>>DL' <0D' +@>E' $1%D%E' D>B<0D>D' +@>' BB>D <+>' <0D' +1+<%' $<0 ?@B>0+' 1'' >,>.E' #0$<A+ G>D' ?.<>% +>' '.1B' +@>' %<0D '

@>' />J?!' J@1' @<D' 1$+< 0>D' <0' 0+ B<+ 10' 1'' +@>?>' A.1C>>D 0=?!' .>?1.+>D' +1' +@> .' #?#<%' C.<'+E' A1@ CE' '1.' A.1A + <+ 0=' <' '<,1#.<$%>' D ?A1? + 10' 0' +@>' ?1,>.> =0?' @>E' C1B B ?? 10>D' 10>' 1''+@> .' $1DE' +1' +>0D>.' <' D10<+ ,>' 1''+@ .+E' +@1#?<0D' D#C<+?' +1J<.D?' D>'.<E 0=' +@>' >KA>0?>?' 1'' +@>' 11.?@' J<.' @>' 0>=1+ <+ 10!' @1J>,>.!' J<?' ?#DD>0%E' 0+>..#A+>D' $E

L' %%1 ' ' ,'!' ' '!' %)(!')2$, , ,), ' 3!' D! J') ' 8, ' 5')2$, , ,)' 5% 3%') ' 1!',!'(!' .,,!' (!',,,!' J' !' % C' 3$' 3, !' 3!' F(,.!' JR % ' 8, !' 5K >' 3%') ')!' .,,,!' 3!' I!

' %%1 ' ' ,',) ' ' >' ' $')2$, , ,), ' 3!' !

%%G%'5')5 G%' 0 ' A' . ,')%'( ))' ' A'4%), A; 1)' 0' A'?B ',)'%' ' %' 1 %$ ' ' A'$ ')' 1); %)(' 0' A'*% 5,)%' 0' 3%,)!' A'4,' C' 0' A'4, ' %3A' 1%@ ' A,1' (%,1' A' (5,' 0' . C'0%)%,(%'%('0 'A,', $; , $'A !' //*),(%5 ': %)' *% 5)%'3!' 6 !

+@>' 0F# ? +1.M=>0>.<%!' 1.F#>B<D<!' J@1' $#.?+' 0+1'
+@>' <A<.+B>0+' 1'' +@>' A<%<C>' J@>.>' +@>' ?1,>.> =0?'
J>.>' = , 0=' <#D >0C>' +1' +@>' />J ?@' D>A#+E!' <0D!'
D.<J 0=' '1.+@' <' C.#C @K' '.1B' $>0><+@' @ ?' B<0+%>!'
@>%D' +' #A!' >KC%< B 0=!' Q' /#D<?' ?C<. 1+' ?1%D' @ ?'
B<?+>.' '1.' +@ .+E' A >C>?' 1'' ? %,>.' 1#.' @ =@0>??>?'
J1#%D' ?>%%' @ B' <0>J' '1.' +@ .+E' +@1#?<0DL' @>.>' @>' ?!'
+<H>' @ B!' <0D' $<.+>.' @ B' <J<E R' 1' ?<E 0=!' +@>'
'.<0+ C' A. >?+' +@.>J' +@>' C.#C ' K' 10' +@>' +<$%>!' <0D'
%>'+' +@>' <A<.+B>0+' @>' ?1,>.> =0?!' 0?+><D' 1''C@<?P
+ ? 0=' +@ ?' A.>?#BA+ 10!' 1.' D>?A ? 0=' +' <?' <' B>.>'
'.><H' 1'' 0?<0 +E!' J>.>' 1,>.<J>D' $E' +' > +@>.'
>.D 0<0D' 01.' ?<$>%%<!' @<D' +@>E' $>>0' %>'+' +1' +@>'
#0$ <??>D' D C+<+>?' 1'' +@> .' 1J0' .><?10!' C1#%D' @<,>'
?<0C+ 10>D' '1.' <' B1B>0+' ?1' BA1%+C' <' B><?#.>!'
J@ C@' 0,1%,>D' +@>' %1??' 1'' +@>' B1?+' 0D#?+. 1#?' <0D'
?H %'#%' A1.+ 10' 1''+@> .' ?#$">C+?' +?' >K+.>B>' 0"#?P
+ C>' <0D' C.#>%+E' .>0D>.>D' +' >?A>C <%%E' .>A#=0<0+' +1'
+@>' 0<+#.<%%E' @#B<0>' D ?A1? + 10' 1''+@>' F#>>0 T' #+'
?@>' @<D' $>>0' ><.%E' ?C@11%>D' +1' D ?+.#?+' @>.' 1J0'
.><?10!' <0D' 0D>>D' +@>' 0<+#.<%' ?#==>?+ 10?' 1''@#P
B<0 +E!' 0' C<?>?' 1''C10?C >0C>' B10=' +@>' .>,>.>0D'
C1#0?>%%1.?!' 10' J@1B' ?@>' . 1?+' .>% >D' 0' +@>?>' B<+P
+>.?!' J<?' +@>' 1B 0 C<0' 1.F#>B<D<' @>' ? +#<P
+ 10' J@ C@' +@ ?' B<0' >0"1E>D' <?' +U'>' F#>>0 ?' C10'>??1.'
D#. 0=' +@>' +>0D>.' E><.?' 1''@>.' E1#+@!' =<,>' @ B' <0

W') ' 8, ' 5 ' K)2$,>' 0' (%,)' 1$),(,3%' 5,)%)('
, ,)' 5K 3%') ' 1!' ,!' .,,!' %'%,) ' A ' ? B ' ,)' :$,3$ (%
(!' E %)5' 5 ',)' '3 %,) C',) ,;
$ '% ',)'%' ' ' A ' *% ; 1% ' A%' A C' B ') '%' % '
5,)%' 0' 3%,) ' %),1%5. ,)''' ' A ' % ' 0' A '2$)!' ' >'
B, A' 1$(A' . ,C')' A ') % ' 3!' FFF,!' 5!' 1 ! / !

<?C>0D<0CE‘ 1,>.‘ @>.‘ B 0D!‘ J@ C@‘ B#?+‘ @<,>‘ $>>0‘ D>0 >D‘ +1‘ <‘ A>.?10‘ 1’‘ @ ?‘ ?<,<=>‘ ‘<0<+ C<%‘ +>BA>.!‘ >,>0‘ J +@‘ +@>‘ <D,<0+<=>?‘ 1’‘+@ ?‘ ?A . +#<%‘ C100>K 10!‘ @<D‘ +‘ $>>0‘ ‘1.B>D‘ <+‘ <‘ . A>.‘ A>. 1D‘ 1’‘ @>.‘ % ‘>‘ +@1#+‘ 1AA1? 0=‘ ‘#.+@>.‘ .>? ?+<0C>‘ +1‘ +@>‘ .>A.>?>0P +<+ 10?!‘ ?1‘ >BA@<+ C<%%E‘ >KA.>??>D!‘ 1’‘ +@>‘ @1%E‘ A>.P ?10?‘ 0‘ J@1B‘ ?@>‘ B1?+‘ C10’ D>D!‘ ?<$>%%<‘ <+‘ %>0=+@‘ ? %>0C>D‘ @>.‘ 1J0‘ ?C.#A%>?!‘ <0D‘ C10?>0+>D‘ +1‘ +@>‘ ‘<+<%‘ B><?#.>‘ 1’‘A.1?C. A+ 10

@>‘>D C+‘ ‘1.‘ +@>‘ >KA#%? 10‘ 1’‘+@>‘ /> J?‘ J<?‘ ? =0>D‘ $E‘ +@>‘ A<0 ?@‘ ?1,>.> =0?‘ <+‘ .<0<D<!‘ <.C@‘ +@!‘ 6:7‘ @>‘ A.><B$%>‘ <%%>=>?!‘ 0‘ , 0D C<+ 10‘ 1’‘ +@>‘ B><?#.>!‘ +@>‘ D<0=>.‘ 1’‘<%%1J 0=‘ ‘#.+@>.‘ 0+>.C1#.?>‘ $>+J>>0‘ +@>‘ />J?‘ <0D‘ +@> .‘ @. ?+ <0‘ ?#$">C+?!‘ 0‘ C10?>F#>0C>‘ 1’‘+@>‘ 0C1.. = $%>‘ 1$?+ 0<CE‘ J +@‘ J@ C@‘ +@>‘ ‘1.B>.‘ A>.? ?+>D‘ 0‘ +@> .‘ <++>BA+?‘ +1‘ B<H>‘ C10P ,>.+?‘ 1’‘ +@>‘ %<++>.‘ +1‘ +@> .‘ 1J0‘ ‘< +@!‘ <0D‘ +1‘ 0P ?+.#C+‘ +@>B‘ 0‘ +@> .‘ @>.>+ C<%‘ . +>?!‘ 0‘ 1A>0‘ D>’ <0C>‘ 1’‘ >,>.E‘ %>=<%‘ A.1@ $ + 10‘ <0D‘ A>0<%+E& @>0‘ <‘ C1%%>=>‘ 1.‘ C1.A1.<+ 10‘ 1’‘ <0E‘ H 0D!‘ +@>‘ 0?+.#B>0+‘ =1>?‘ 10‘ +1‘ ?+<+>!‘ ?‘ C10, C+>D‘ 1’‘ <0E‘ =.><+‘ 1.‘ D>P +>?+<$%>‘ C. B>!‘ +‘ ?‘ . =@+‘ +@<+‘ +‘ ?@1#%D‘ $>‘ D ?P ‘.<0C@ ?>D!‘ +@>‘ %>??‘ ?#’’>. 0=‘ J +@‘ +@>‘ =.><+>.!‘ +@>‘ 001C>0+‘ J +@‘ +@>‘ =# %+E‘ ’‘ +@ ?‘ $>‘ +@>‘ C<?>‘ 0‘ +>BA1.<%‘ C10C>.0 "U‘ +‘ ?‘ B#C@‘ B1.>‘ ?1‘ 0‘ +@1?>‘ J@ C@‘ <’’>C+‘ +@>‘ >+>.0<%‘ J>%’<.>‘ 1’‘ +@>‘ ?1#%‘ +‘ ’ 0<%%E‘ D>C.>>?!‘ +@<+‘ >,>.E‘ #0$<A+ G>D‘ />J!‘ 1’‘ J@<+P >,>.‘ ?>K!‘ <=>!‘ 1.‘ C10D + 10!‘ ?@1#%D‘ D>A<.+‘ ‘.1B‘ +@>‘ .><%B‘ $E‘ +@>‘ >0D‘ 1’‘ /#%E‘ 0>K+‘ >0?# 0=L‘ A.1@ $ + 0=‘ +@>B‘ ‘.1B‘ .>, ? + 0=‘ +‘ 10‘ <0E‘ A.>+>K+‘ J@<+>,>.!

#0D>.' A>0<%+E' 1'' D><+@' <0D' C10' ?C<+ 10' 1'' A.1A>.+E'
+' J<?!' B1.>1,>.!' 0+>.D C+>D' +1' <0E' ?#$">C+' +1' @<.P
$1#.!' ?#CC1#.!' 1.' B 0 ?+>.' +1' +@>' 0>C>?? + >?' 1'' <0E'
/>J!' <'+>.' +@>' >KA .<+ 10' 1''+@>' +>..<' % B +>D' '1.' @ ?'
D>A<.+#.>' @>' A>.?10?' <0D' A.1A>.+E' 1'' +@>' />J?!'
0' +@>' B><0' + B>!' J>.>' +<H>0' #0D>.' +@>' .1E<%' A.1P
+>C+ 10' @>E' J>.>' <%%1J>D' +1' D ?A1?>' 1'' +@> .' >'P
'>C+?' 1'' >,>.E' H 0D' 10' +@> .' 1J0' <CC1#0+!' <0D' +1'
C<..E' +@<' A.1C>>D?' <%10=' J +@' +@>B!' 0' $ %%?' 1'' >KP
C@<0=>!' 1.' B>.C@<0D ?>' 01+' A.1@ $ +>D!' $#+' 0> +@>.'
0' =1%D' 01.' ? %,>. T

@>' D11B' 1'' >K %>' '>%%' % H>' <' +@#0D>.$1%+' 10M +@>'
@><D?' 1'' +@>' ?.<>% +>?' ' %<.=>' A.1A1.+ 10' 1'' +@>B'
@<D' @ +@>.+1' ?#CC>>D>D' 0' ?@ >%D 0=' +@>B?>%,>?' '.1B'
+@>' ?><.C@ 0=' >E>' 1'' +@>' 0F# ? + 10!' $E' <0' <''>C+<P
+ 10' 1''.>,>.>0C>' '1.' +@>' '1.B?' 1'' <+@1% C' J1.?@ A!'
<0D' <' D ?C.>>+' '1.$><.<0C>' 1'' J@<+>,>.' B ''@+' 1''>0D
+@>' A.>"#D C>?' 1'' +@> .' @. ?+ <0' $.>+@.>0' @>E'
@<D' >,>0' @1A>D' +@<+' +@> .' ?+><DE' %1E<%+E!' <0D' <' F# >+'
<0D' 1.D>.%E' D ?C@<.=>' 1''+@> .' ?1C <%' D#+ >?!' J1#%D' 0'
+ B>' ?>C#.>' +@>B' @ =@>.' B B#0 + >?' <0E' @<D'
. ?>0' +1' <' D>=.>>' 1'' 1A#%>0C>!' $E' B><0?' 1'' +@>' +@. '+'
<0D' D>K+>. +E' A>C#% <.' +1' +@>' .<C>!' J@ C@' =<,>' +@>B'
<' ?+ %%' D>>A>.' 0+>.>?+' 0' +@>' %<0D' 1''+@> .' .>? D>0C> Z

L' :%,)8 G5 '*% 4%+% ')% ' 5, '%)5'%) A ' .)'% 'A%.,)''
!'%) ' H ! J (3,%(,)' 5 ' %1% 5')!' 8 '1),)')'
%' C '5 ' C) ' ,4!'.,,,!' , !' ,)' 3% ,($% '4C' A ')%1 ' 0'
,,!' C' !J' %'1%,(%'5 ' C; 4 %A%1'%') ,)''A ' # !#'
) <' 5!' 6 '0 ! > !' *' &! #!' 'B,'A% 5 C'
]' A' ($% ' 0' ' %%(, ' 5 ' '%@'A ' 5'($% K' % ;
3 %@' 0' . %' % , 'B A' 1)' "'># ' #' ' #!! #' '
)' ' B '1, ,)' 0'1%%. > C '*% ,(! !'(!'(F,,

'

□

@> .' '<B % >?' J>.>' .><.>D' 0' <%%' +@>' >%>=<0+' .>' 0>P B>0+?' 1'' % '>!' <0D' +@> .' J><%+@' <0D' >D#C<+ 10' 1'+>0' D ?A1?>D' +@>B' +1' +#.0' +@> .' <++>0+ 10' +1' % $>.<%' A#.?# +?!' J@ C@' >001$%>D' +@>' C@<.<C+>.!' 0D>>D!' $#+' .>0D>.>D' +@>B' A>.?10<%%E' B1.>' ?>0? $%>' +1' A@E? C<%' <001E<0C>!' <0D' %>??' ' ++>D' +1' >0C1#0+>.' +@>' A>. %?' <0D' A. ,<+ 10?' 1'' +@> .' D.><.E' A %=. B<=>' ,>0' +@>' B<??' 1'' +@>' C1BB10' A>1A%>' A1??>??>D' <' D> +>. +E' 0' ,<. 1#?' @<0D C.<'+?!' J@ C@' <''1.D>D' <' C1B'1.+<$%>' % ,>% @11D!' .< ? 0=' +@>B' '<.' <$1,>' ? B %<.' C%<??>?' 0' B1?+' 1+@>.' 0<+ 10?!' J@1' B =@+' .><D %E' $>' D>+<C@>D' '.10' +@>' ?1 %' 10' J@ C@' +@>E' @<AA>0' +1' $>' C<?+!' J +@' C1BA<.<+ ,>%E' % ++%>' ?<C. ' C>' 1''%1C<%' 0+>.>?+? T' @>?>' + >?' J>.>' 01J' ?>,>.>D' <+' <' $%1J' @>E' J>.>' +1' =1' '1.+@' <?' >K %>?' '.1B' +@>' %<0D' 1''+@> .' $.+@'L' +@>' %<0D' J@>.>' <%%' +@>E' >,>.' %1,>D' @<D' % ,>D' 1.' D >DL' +@>' %<0D' 01+' ?1' B#C@' 1''+@> .' <D1A+ 10' <?' 1'' 0@>P . +<0C>'L' J@ C@' @<D' $>>0' +@>' @1B>' 1''+@> .' <0C>?+1.?' '1.' C>0+#. >?!' <0D' J +@' J@1?>' A.1?A>. +E' <0D' =%1.E' +@>E' J>.>' 1'' C1#.?>' <?' 0+ B<+>%E' <??1C <+>D' <?' J<?' <0E' <0C >0+' A<0 <.D' @>E' J>.>' +1' $>' C<?+' 1#+' @>%A%>??' <0D' D>'>0C>%>??!' J +@' <' $.<0D' 1'' 0'<BE' ?>+' 10' +@>B!' <B10=' 0<+ 10?' J@1' @<D' <%J<E?' @>%D' +@>B' 0' D>. ? 10' <0D' @<+.>D

@1?>' A.1, ? 10?' 1'' +@>' >D C+' J@ C@' <''>C+>D' <' ?@1J' 1'' H 0D0>??' +1' +@>' />J?!' J>.>' C10+. ,>D' ?1' <.+'#%%E' <?' +1' $>' 0><.%E' 0#=<+1.E' ?' +@>E' J>.>' >KC%#D>D' '.1B' +@>' #?>' 1'' =1%D' <0D' ? %,>.!' +@>' 10%E' B>D #B' '1.' .>A.>?>0+ 0=' +@> .' A.1A>.+E' J<?' $ %%?' 1'

>KC@<O=> #+ C1B B>.C> J<? +11 % B +>D <OD BP A>.'>C+ +1 <%%1J 1'+@>?> $> O= A.1BA+%E 1$+< O>D +1 <OE ,>.E C1O? D>.<$%>! B#C@ %>?? +1 +@> >01.B1#? <B1#O+ .>F#H>D O +@> A.>?>O+ O?+<OC> + J<? BA1?? $%>! B1.>1,>.! +1 O>=1+ <+> < ?<%> 1'+@> . >''>C+? #OD>. >K ?+ O=C .C#B?+<OC>?! ? OC> +@> B<.P H>+ J<? ?11O =%#++>D J +@ C1B B1D + >?L <OD '>J J1#%D $> '1#OD J %% O= +1 = ,> <OE+@ O= % H> <O >F# ,<%>O+ '1. J@<+! ' O1+ D ?A1?>D 1' J +@ O +@> A.>?C. $>D +>.B! +@> A.1A. >+1.? B#?+ .>% OF# ?@ <+ <OE .<+> 1 D>A%1.<$%>! OD>>D! J<? +@> ?<C. 'C> 1' A.1A>.+E! +@<+ < C@.10 C%>. 1' +@> D<E B>O+ 10?! @> @<D ?>>O < @1#?> >KC@<O=>D '1. <O <??! <OD < , O>E<.D '1. < ?# + 1' C%1+@>? Z O .<=10 B<++>.? J>.> ?+ %% J1.?> @> =1,>.OB>O+ +@>.> D ?C1,>.>D +@<+ +@> />J? J>.> %<.=>%E OD>$+>D +1 OD , D#<%?! <OD +1 C>.+< O C1.A1.<+ 10? + <CC1.D O=%E C<#?>D +@> . A.1A>.+E +1 $> ?>F#>?+.<+>D '1. +@> $>O>' + 1'+@> . C.>D +1.?! #O+ % +@> . D>$+? ?@1#%D $> % F# D D<+>D +.<O=>! OD>>D! +@<+ +@> $<%<OC> ?@1#%D $> '1#OD <=< O?+ < 3 3 J@1 @<,> $>>O >,>.EP J@>.> C1O?A C#1#? '1. +@> . C1B B>.C <% ?<=<C +E <OD .>?1#.C>?! <OD J@1! <? '<C+1.? 1' +@> =.><+ O1$ % +E <OD '<.B>.? 1' +@> .>,>O#>! >O"1E>D <+ %><?+ >F#<% <D,<O+<=>? O A< O J +@ +@1?> A1??>??>D O 1+@>. C1#O+. >? '1. +@> <CC#B#%<+ 10 1' J><%+@ZT

 F /6' ./C *+ -G%7),))!):%,(,%% A %1 !4'')./ !'&4(6.!,0 !H! ,1 A B 4$ A %3PT *%31%)C),(A)$14 ,)*%%),%4$) ! 1! 0 C)%' '$ F, ,)'',) %; 8,)(%5 %( )% 1!,C! ') ,) D I % %1 $) ,)'' 3)5! $1! !

@ %>‘ +@>‘ =%11 B E‘ <?A>C+‘ 1 ‘‘ +@> .‘ ‘1.+#0>?‘ A.>??>D‘ @><, %E‘ 10‘ +@>‘ / ><.+?‘ 1 ‘‘ +@>‘ ?.<>% +>?!‘ +@>‘ A<0 ?@‘ C%>.=E‘ J‘>.>‘ 0D>‘<+ =<$%>‘ 0‘ +@>‘ J1.H‘ 1 ‘‘ C10,>.? 10‘ @>E‘ %>C+#.>D‘ 0‘ +@>‘ ?E0<=1=#>?‘ <0D‘ A#$% C‘ ?F#<.>?!‘ >KA1#0D 0=‘ +@>‘ D1C+. 0>?‘ 1 ‘‘ @. ?+ <0 +E!‘ <0D‘ +@#0P D>. 0=‘ ‘1.+@‘ $1+@‘ <.=# B >0+‘ <0D‘ 0,>C+ ,>‘ <=< 0?+‘ +@>‘ >$.>J‘ @>.>?E‘ #+‘ +@> .‘ %<#D<$%>‘ >0D><,1#.?‘ J>.>‘ 0‘ <‘ =.><+‘ B><?#.>‘ C1#0+>.<C+>D‘ $E‘ +@>‘ +01.> <#+@1. +<+ ,>‘ .@>+1. C‘ 1 ‘‘ +@>‘ />J ?@‘ <$$ 0?!‘ J@1 C1B A<.>D‘ +@>‘ A>.?>C#+ 10?‘ 1 ‘‘ +@> .‘ $.>+@.>0‘ +1‘ +@1?>‘ J@ C@‘ +@> .‘ <0C>?+1.?‘ @<D‘ ?#‘‘>.>D‘ #0D>.‘ 5@<.<1@L‘ +@>E‘ >0C1#.<=>D‘ +@>B‘ +1‘ A>.?>,>.>!‘ .>A.>?>0+ 0=‘ +@<+‘ +@>‘ A.>?>0+‘ <‘‘% C+ 10?‘ J>.>‘ 0+>0D>D‘ <?‘ <‘ +. <% 1 ‘‘ +@> .‘ ‘< +@‘ $E‘ +@>‘ %B =@+E!‘ J@1‘ D>? =0>D‘ 0‘ +@ ?‘ J<E‘ +1‘ =# D>‘ +@>B‘ +1‘ +@>‘ A.1B ?>D‘ %<0D!‘ $E‘ 1A>0 0=‘ <‘ A<+@‘ +@.1#=@‘ +@>‘ J<+>.?!‘ <?‘ @>‘ @<D‘ D10>‘ +1‘ +@> .‘ ‘<+@>.?‘ 1 ‘‘ 1%D‘ @>‘ B1.>‘ J><%+@E‘ ?.<>% +>?‘ >0‘1.C>D‘ +@> .‘ >K@1.+<+ 10?‘ $E‘ % $>.<% C10+. $#+ 10?‘ ‘1.‘ +@>‘ .>% >‘‘ 1 ‘‘ +@> .‘ 0D =>0+‘ $.>+@.>0‘ @#?‘ ?+.>0=+@>0P >D!‘ +@>.>‘ J>.>‘ ‘1#0D‘ $#+‘ ,>.E‘ ‘>J!‘ J&@>0‘ +@>‘ D<E‘ 1 ‘‘ D>A<.+#.>‘ <.. ,>D!‘ J@1‘ J>.>‘ 01+‘ A.>A<.>D‘ +1‘ <$<0P D10‘ +@> .‘ C1#0+.E‘ .<+@>.‘ +@<0‘ +@> .‘ .>% = 10‘ @ ?‘ >K+.<1.D 0<.E‘ <C+‘ 1 ‘‘ ?>%‘MD>,1+ 10‘ $E‘ <‘ J@1%>‘ A>1A%>‘ ‘1.‘ C10?C >0C>‘ ?<H>!‘ B<E‘ $>‘ +@1#=@+‘ $E‘ <‘ C10+>BP A1.<.E‘ 1 ‘‘ +@>‘ 0 0>+>>0+@‘ C>0+#.E‘ +1‘ B>.+‘ 1+@>.‘ >A +@>+?‘ +@<0‘ +@1?>‘ 1 ‘‘ Q‘ A>.‘ DE!‘ 0C.>D#% +E!‘ <0D‘ ?+ ‘‘M0>CH>D‘ 1$?+ 0<CE!R‘ J +@‘ J@ C@‘+@>‘ J1.+@E‘ C#P .<+>‘ 1 ‘‘%1?‘ 5<%<C 1?!‘ 0‘ +@>‘ C@<. +<$%>‘ ‘>>% 0=‘ 1 ‘‘+@<+‘ D<E!‘ @<?‘ ?>>0‘ ‘ +‘ +1‘ ?+ =B <+ G>‘ + T

/6‘ ./C‘ ‘ (/‘ *4‘ /4 *‘ *+ - /%/!‘0‘ 04‘ .> 08‘&)/‘ 4(6‘H 8‘ 1I1

@>0' +@>' A>. 1D' 1'' D>A<.+#.>' <.. ,>D!' <%%' +@>' A. 0C A<%' .1#+>?' +@.1#=@' +@>' C1#0+.E' B =@+' $>' ?>>0' ?J<. B 0=' J +@' >B =.<0+?!' 1%D' <0D' E1#0=!' +@>' ? CH' <0D' +@>' @>%A%>??!' B>0!' J1B>0!' <0D' C@ %D.>0!' B 0=%>D' A.1B ?C#1#?%E' +1=>+@>.!' ?1B>' B1#0+>D' 10' @1.?>?' 1.' B#%>?!' $#+' $E' '<.' +@>' =.><+>.' A<.+' #0D>.+<H 0=' +@> .' A< 0'#%' A %=. B<=>' 10' '11+' @>' ? =@+' 1'' ?1' B#C@' B ?>.E' +1#C@>D' >,>0' +@>' A<0 <.D?' J +@' A +E!' +@1#=@' 010>' B =@+' ?#CC1#.' +@>B!' '1.' +@>' =.<0D' 0F# ? +1.!' 1.F#>B<D<!' >0'1.C>D' +@>' 1.D 0<0C>' +1' +@<+' >''>C+!' $E' D>01#0C 0=' @><,E' >CC%>? <?+ C<%' C>0?#.>?' 10' <%%' J@1' ?@1#%D' A.>?#B>' +1' , 1%<+>' +' @>' '#= + ,>?' J>.>' D ?+. $#+>D' <%10=' ,<. 1#?' .1#+>?!' $> 0=' D>'>.M' B 0>D' 0' +@> .' D>?+ 0<+ 10' $E' <CC D>0+<%' C .C#BP ?+<0C>?!' B#C@' B1.>' +@<0' <0E' H01J%>D=>' 1'' +@>' .>?A>C+ ,>' C1#0+. >?' +1' J@ C@' +@>E' J>.>' $1#0D' E' B#C@' +@>' %<.=>?+' D , ? 10!' <B1#0+ 0=' <CC1.D 0=' +1' ?1B>' >?+ B<+>?' +1' 4 ! ' ?1#%?!' A<??>D' 0+1' 51.+#P =<%L' J@1?>' B10<.C@!' /1@0' !' D ?A>0?>D' J +@' @ ?' ?C.#A%>?' 1'' C10?C >0C>' ?1' '<.' <?' +1' = ,>' +@>B' <' '.>>' A<??<=>' +@.1#=@' @ ?' D1B 0 10?' 10' +@> .' J<E' +1' '. C<!' 0' C10? D>.<+ 10' 1'' <' +<K' 1'' <' C.#G<D1' <' @><D' >' ?' >,>0' ?< D' +1' @<,>' ? %>0C>D' @ ?' ?C.#A%>?' ?1' '<.' <?' +1' <%%1J' C>.+< 0' 0=>0 1#?' <.+ ?<0?' +1' >?+<$% ?@' +@>B?>%,>?' A>.B<0>0+%E' 0' +@>' H 0=D1B T

' C10? D>.<$%>' 0#B$>.' '1#0D' +@> .' J<E' +1' +@>' A1.+?' 1'' <0+<' <. <' <0D' <D G!' J@>.>' <'+>.' % 0=>.M

L' N$, %')% ' 5 ' %') ' 8, ' 5 ' $'% ' 1!,.!3!' J/ ' 1 ' E!' 0 ! H! J % ' 8, !' J ' %,%)%' 8, ' 5 ' 3%)%' 5K 3%') ' 1!' .,,,!' 3!' ! J ' 1!' ,,' 3!' ! 1% 5 G' $4,' $3 %!' J ' * 5

7 = ‘ ‘ 8 ‘ ? 9

0=‘ ?1B>‘ + B>‘ 0‘ +@>‘ ,< 0‘ @1A>‘ 1’‘ ?>> 0=‘ +@>‘ J<+>.?‘ 1A>0‘ ‘1.‘ +@> .‘ >=.>??!‘ <CC1.D 0=‘ +1‘ +@>‘ A.1B ?>?‘ 1’‘ +@>‘ <$$ 0?!‘ +@>E‘ >B$<.H>D‘ 10‘ $1<.D‘ <‘ A<0 ?@‘ ‘%>>+‘ ‘1.‘ +@>‘ <.$<.E‘ C1<?+‘ <, 0=‘ C.1??>D‘ 1,>.‘ +1‘ .M‘ C %%<!‘ <‘ @. ?+ <0‘ ?>++%>B>0+‘ 0‘ ‘. C<!‘ J@>0C>‘ +@>E‘ A.1C>>D>D‘ $E‘ %<0D‘ +1J<.D?‘ >G!‘ J@>.>‘ <‘ C10? D>.<$%>‘ N$1DE‘ 1’‘ +@> .‘ C1#0+.EB>0‘ .>? D>D!‘ +@>E‘ J>.>‘ <?P ?<#%+>D‘ 10‘ +@> .‘ .1#+>‘ $E‘ +@>‘ .1, 0=‘ +. $>?‘ 1’‘ +@>‘ D>?>.+!‘ 0‘ F#>?+‘ 1’‘ A%#0D>.‘ 1+J +@?+<0D 0=‘ +@>‘ 0+>.D C+!‘ +@>‘ />J?‘ @<D‘ C10+. ,>D‘ +1‘ ?>C.>+>‘ ?B<%%‘ ?#B?‘ 1’‘ B10>E!‘ ?>J>D‘ #A‘ 0‘ +@> .‘ =<.B>0+?!‘ 1.‘ +@>‘ % 0 0=?‘ 1’‘ +@> .‘ ?<DD%>?‘ @>?>‘ D D‘ 01+‘ >?C<A>‘ +@>‘ <,<. C 1#?‘ >E>?‘ 1’‘ +@> .‘ ?A1 %>.?!‘ J@1‘ <.>‘ >,>0‘ ?< D‘ +1‘ @<,>‘ . AA>D‘ 1A>0‘ +@>‘ $1D >?‘ 1’‘ +@> .‘ , C+ B?!‘ 0‘ ?><.C@‘ 1’‘ =1%D!‘ J@ C@‘ +@>E‘ J>.>‘ ?#AA1?>D‘ +1‘ @<,>‘ ?J<%%1J>D‘ @>‘ %<J%>??‘ $<.$<. <0?!‘ B 0=% 0=‘ %#?+‘ J +@‘ <,<. C>!‘ <$<0D10>D‘ +@>B?>%,>?‘ +1‘ ?+ %%‘ B1.>‘ ‘. =@+‘#%‘ >KC>??>?!‘ , 1%<+ 0=‘ +@>‘ J ,>?‘ <0D‘ D<#=@+>.?‘ 1’‘+@>‘ #0.>? ?+ 0=‘ />J?!‘ 1.‘ B<??<C. 0=‘ 0‘ C1%D‘ $%1AD‘ ?#C@‘ <?‘ 1’’>.>D‘ .>? ?+<0C>‘ #+‘ J +@1#+‘ A#.?# 0=‘ +@>?>‘ %1<+@?1B>‘ D>+< %?‘ ‘#.+@>.!‘ +‘ 0>>D‘ 10%E‘ $>‘ <DD>D!‘ +@<+‘ +@>‘ B ?>.<$%>‘ >K %>?‘ >0D#.>D‘ ?#C@‘ >K+.>P B +E‘ 1’‘ ‘<B 0>!‘ +@<+‘ +@>E‘ J>.>‘ =%<D‘ +1‘ ‘1.C>‘ <‘ 01#P . ?@B>0+‘ ‘.1B‘ +@>‘ =.<??‘ J@ C@‘ =.>J‘ ?C<0+ %E‘ <B10=‘ +@>‘ ?<0D?‘ 1’‘ +@>‘ D>?>.+L‘ #0+ %‘ <+‘ %>0=+@‘ =.><+‘ 0#BP $>.?‘ 1’‘ +@>B!‘ J<?+>D‘ $E‘ D ?><?>!‘ <0D‘ $.1H>0‘ 0‘ ?A . +!‘ .>+.<C>D‘ +@> .‘ ?+>A?‘ +1‘ .C %%<!‘ <0D‘ C10?>0+>D‘ +1‘ $>‘ $<A+ G>D!‘ 0‘ +@>‘ @1A>‘ 1’‘ $> 0=‘ A>.B ++>D‘ +1‘ .>, ? +‘ +@> .‘ 0<+ ,>‘ %<0D‘ @>‘ 0#B$>.!‘ 0D>>D!‘ J<?‘ ?1‘ C10? D>.<$%>‘ +@<+‘ +@>‘ A. >?+‘ J@1‘ 00,(,% 5‘ J<?

1$% =>D' +1' B<H>' #?>' 1'' +@>' B1A!' 1.' @E??1A!' J +@'
J@ C@' +@>' 1B<0' <+@1%C' B ?? 10<. >?' J>.' J10+'
+1' ?C<++>.' +@>' @1%E' D.1A?!' J@1?>' BE?+ C' , .+#>' C1#%D'
C%><0?>' +@>' ?1#%' 0' <' B1B>0+' '.1B' +@>' '1#%>?+' ?+< 0?'
1'' 0' D>% +E ' Q' @#?!R'?<E?' <' <?+ % <0'@ ?+1. <0!' Q' +@>'
C<%<B + >?' 1''+@>?>' A11.'$% 0D'C.><+#.>?' A.1,>D' 0' +@>'
>0D' <0' >KC>%%>0+' .>B>DE' +@<+' 1D' B<D>' #?>' 1'' +1'
#0?><%' +@> .' >E>?!' J@ C@' +@>E' 01J'1A>0>D' +1' +@>' ,< 0'
A.1B ?>?' 1'' +@>' <$@ 0?L' ?1' +@<+!' .>01#0C 0=' +@> .'
<0C >0+' @>.>? >?!' +@>E' $>C<B>' '< +@'#%' '1%%1J>.?' 1''
+@>' .1?? RT

<0E' 1''+@>' >B =.<0+?' +11H' +@>' D .>C+ 10' 1'' +<%E '
@1?>' J@1' %<0D>D' <+' <A%>?' $.1#=@+' J +@' +@>B' <0'
0'>C+ 1#?' D ?1.D>.!' C10+.<C+>D' $E' %10=' C10' 0>B>0+'
0' ?B<%%!' 1,>.C.1JD>D!' <0D' %%' A.1, D>D' ,>??>%?' @>'
D ?1.D>.' J<?' ?1' B<% =0<0+!' <0D' ?A.><D' J +@' ?#C@'
'0=@+'#%' C>%>. +E!' <?' +1' ?J>>A' 1''' B1.>' +@<0' 7 ! '
0@<$ +<0+?' 1'' +@>' C +E' 0' +@>' C1#.?>' 1'' +@>' E><.!'
J@>0C>' +' >K+>0D>D' +?' D>,<?+<+ 10' 1,>.' +@>' J@1%>'
+<% <0' A>0 0?#'<

' =.<A@ C' A C+#.>' 1'' +@>?>' @1..1.?' ?' +@#?' = ,>0'
$E' <' >01>?>' @ ?+1. <0!' <0' >E>MJ +0>??' 1'' +@>' ?C>0>?'
@>' D>?C. $>?' W' 1' 10>!R'% >' ?<E?!W'C1#%D' $>@1%D' +@>'
?#''>. 0=?' 1'' +@>' />J ?@' >K %>?' #0B1,>D' ' =.><+'
B<0E' A>. ?@>D' 1'' @#0=>.!' >?A>C <%%E' +@1?>' 1'' +>0D>.'
E><.?' 1+@>.?!' J +@' ?C<.C>%E' ?+.>0=+@' +1' ?#AA1.+'
+@>B?>%,>?!' C<.. >D' +@> .' '<B ?@>D' 0'<0+?' 0' +@> .'
<.B?!' <0D' D >D' J +@' +@>B ' <0E' '>%%' , C+ B?' +1' +@>

L' % ' 8, !' 5K 3%') ' 1!' .,,,!' 3!' !' J' 1%5 G'
8, !' !' (! (F,,,!

7 7 ;5 ‘ ‘ ‘ /

C1%D‘ 1+@>.? +1‘ 0+>0?>‘ +@ .?+‘ J@ %>‘ +@>‘ #0<CC#?P
+1B>D‘D ?+.>??>?‘ 0C D>0+‘ +1‘ < ?>< 1E<=>‘ <==.<,<+>D‘
+@> .‘ B<%<D >?‘ ‘ J %% 01+‘ >0%<.=>‘ 10‘ +@>‘ C.#>%+E‘
<. D‘ +@>‘ <,<. C>‘ J@ C@‘ +@>E‘ '.>F#>0+%E‘ >KA>. >0C>D‘
'.1B‘ +@>‘ B<?+>.? 1'‘ +@>‘ ?@ A? J@ C@‘ +.<0?A1.+>D
+@>B‘ '.1B‘ A< 0‘ 1B>‘ J>.>‘ B#.D>.>D‘ +1‘ =.<+ 'E
+@> .‘ C#A D +E‘ 1+@>.?‘ '1.C>D‘ +1‘ ?>%% +@> .‘ C@ %D.>0‘ '1.‘
+@>‘ >KA>0?>?‘ 1'‘+@>‘ A<??<=>‘ @>E‘ <.. ,>D‘ 0‘ >01<‘
0‘C.1JD?!‘ $#+‘ J>.>‘ 01+‘ ?#''>.>D‘ +1‘ +<..E‘+@>.>‘ %10=!‘
$E‘ .><?10‘ 1'‘ +@>‘ <0C >0+‘ %<J‘ J@ C@‘ 0+>.D C+>D‘ +@>‘
/>J ?@‘ +.<,>%%>.‘ '.1B‘ <‘ %10=>.‘ .>? D>0C>‘ +@<0‘ +@.>>‘
D<E?‘ @>E‘ J>.>‘ <%%1J>D!&@1J>,>.!‘ +1‘ .>'+‘ +@> .‘
,>??>%?!‘ <0D‘ +1‘ .>C.#+‘ +@>B?>%,>?‘ '1.‘ ?1B>‘ D<E?‘ '.1B‘
+@>‘ '<+ =#>?‘ 1'‘+@> .‘ ,1E<=>‘ 0>‘ B =@+‘ @<,>‘ +<H>0‘
+@>B‘ '1.‘ ?A>C+.>?!‘ ?1‘ >B<C <+>D‘ J>.>‘ +@>E!‘ ?1‘ C<D<P
,>.1#?‘ 0‘ +@> .‘ <?A>C+!‘ <0D‘ J +@‘ >E>?‘ ?1‘ ?#0H>0L‘
+@>E‘D ''>.>D‘ 0‘ 01+@ 0=‘ '.1B‘ +@>‘ D><D!‘ >KC>A+‘ 0‘ +@>‘
A1J>.‘ 1'‘ B1+ 10!‘ J@ C@‘ 0D>>D‘ +@>E‘ ?C<.C>%E‘ .>P
+< 0>D‘ <0E‘ '< 0+>D‘ <0D‘ >KA .>D‘ 10‘ +@>‘ B1%>!‘
J@ C@!‘ $> 0=‘ C1BA%>+>%E‘ ?#..1#0D>D‘ $E‘ +@>‘ ?><!‘ J<?‘
+@>‘ 10%E‘ F#<.+>.‘ ,1#C@?<'>D‘ +1‘ +@>‘ J.>+C@>D‘ >B P
=.<0+?‘ @>‘ 0'>C+ 10‘ $.>D‘ $E‘ ?#C@‘ <‘ ?J<.B‘ 1'‘ D><D‘
<0D‘ DE 0=‘ A>.?10?‘ J<?‘ 01+‘ <+‘ 10C>‘ A>.C> ,>DL‘ $#+‘
J@>0‘ +@>‘ J 0+>.‘ $.1H>‘ #A!‘ #%C>.?‘ $>=<0‘ +1‘ B<H> ‘
+@> .‘ <AA><.<0C>!‘ <0D‘ +@>‘ B<%<DE!‘ J@ C@‘ %#.H>D‘ '1.‘
<‘ %10=‘ + B>‘ 0‘ +@>‘C +E!‘ $.1H>‘ 1#+‘ 0+1‘ +@>‘ A%<=#>‘ 0‘
+@>‘ '1%%1J 0=‘ E><. R‘T

<0E‘ 1'‘ +@>‘ >K %>?‘ A<??>D‘ 0+1‘ #.H>E!‘ <0D‘ +1

L‘ % A !‘)% '%‘ ‘ " >‘ % !‘ (,3 %‘ 1!‘FF,.!‘ 33>‘
4$‘ :)$) !‘%3!‘ $ % ,‘ ! 6 L‘

D ''>.>0+ A<.+?' 1''+@>' >,<0+!' J@>.>' +@> .' D>?C>0DP <0+?' C10+ 0#>D' +1' ?A><H' +@>' <?+ % <0' %<0=#<=>' '<.' 0+1'+@>' '1%%1J 0='C>0+#.E' +@>.?' '1#0D'+@> .' J<E' +1' .<0C>!' <0D' >,>0' 0=%<0D' 5<.+' 1''+@> .' .>% P = 1#?' ?>., C>?' ?' .>C +>D' +1' +@ ?' D<E' 0' A<0 ?@!' 0' 10>' 1.' B1.>' 1''+@>' 10D10' ?E0U1=#>?L' <0D' +@>' B1D>.0' />J' ?+ %%' .>,>.+?' J +@' '10D' A<.+ <% +E' +1' A< 0!' <?' +@>' C@>. ?@>D' %<0D' 1''@ ?' '<+@>.?!' %%#?P +.<+>D' $E' +@>' B1?+' =%1. 1#?' .>C1%%>C+ 10?' 0' @ ?' >,>0+'#%' @ ?+1.E T

@>' J@1%>' 0#B$>.' 1''/>J?' >KA>%%>D' '.1B' A< 0' $E' >.D 0<0D' <0D' ?<$>%%<!' ?' ,<. 1#?%E' C1BA#+>D' <+' '.1B' ! ' +1' 4 ! ' ?1#%?L' <' D ?C.>A<0CE' ?#'' C >0+%E' 0D C<+ ,>' 1''+@>' A<#C +E' 1''<#+@>0+ C' D<+<' 1?+' B1D>.0' J. +>.?!' J +@' +@>' #?#<%' A.>D P %>C+ 10' '1.' ?+<.+% 0=' .>?#%+?!' @<,>'<??#B>D' +@>' %<++>.' >?+ B<+>L' <0D' %1.>0+>' @<?' B<D>' +' +@>' $<? ?' 1''?1B>' BA1.+<0+' C<%C#%<+ 10?' 0' @ ?' @ ?+1.E' 1''+@>' 0F# ?+10' ' ,>J' 1''<%%' +@>' C .C#B?+<0C>?' J %%' %><D' #?' J +@1#+' B#C@' @>? +<+ 10' +1' AD1A+' +@>' B1.>' B1D>.<+>' C1BA#+<+ 10 '' @ ?!' B1.>1,>.!' ?' A%<C>D' $>E10D' .><?10<$%>' D1#$+' $E' +@>' D .>C+' +>?+ B10E' 1'

L' '%'),4 ') ,(' 0'8 ; :) %<' %) A ' % ' 0, ,)'' A ' 4 B' , %$ ' ,)' 3%,)' ,)' A ' 3 ' 0'%) 1 ' %)5'(A),; 3 (,. ' ., B'. !',,,!'3!' ('$)5 ' ",)'' 1%)$ ' 0' ; H! J %,%)% 8, '5' 3%0 %' $'% !' %)C' 0' A 1'3$4, A 5' 1!',,!' ,4!' FF.,!' (!',! J N$, %' B @',)'.%, $'5 3% 1) ' 0')% '5' %')' 1!'.!0 !H! (,)(' BA,(A' B ' %) % 5' '%'0 B' 0' A ' %) 5' F; ,) ' A ' 3%), A' %)5' A ' $; , '% %,) 5' ' 1,))(',)' A ' 3 %)' %)'$%' !' ,4, A (% ($), ' 0' $ 3'BA ' A C' 3%A %' 1!',!'33! 0 J %) 0 5' A ,' ,5)(!) ']' 1' %' ($, $'5 ($1)!' , '1),) 5'4C' *% '%'%' %5; ,)' A ' 6 +,#&' *' E &' ,)''3 %(,,) ' 0' 1 5,(,) ',) ( ), ,)'' 0'% 3 ' 1%5'

+@>‘ C#.<+>‘ 1‘%1?‘ 5<%<C 1?‘ >‘ .>A1.+?‘ +@<+‘ <‘ />J ?@‘ <$$ 0!‘ 10>‘ 1‘‘+@>‘ >K %>?!‘ ?#$?>F#>0+%E‘ .>+#.0>D‘ +1‘ A< 0!‘ J@>.>‘ @>‘ J<?‘ $<A+ G>D‘ $E‘ @ B ‘ @ ?‘ A>.?10!‘ J@1B‘ >.0<%D>G‘ C1B B>0D?‘ ‘1.‘ @ ?‘ 0+>%% =>0C>!‘ >?P + B<+>D‘ +@>‘ J@1%>‘ 0#B$>.‘ 1‘‘@ ?‘ #0$<A+ G>D‘ C1#0P +.EB>0‘ 0‘ +@>‘ D1B 0 10?‘ 1‘‘ >.D 0<0D‘ <0D‘ ?<$>%%<!‘ <+‘ +@>‘ A#$% C<+ 10‘ 1‘‘ +@>‘ >D C+!‘ <+‘ ! ‘ ‘<B %>?‘ 01+@>.‘ />J ?@‘ <#+@1. +E!‘ F#1+>D‘ $E‘ +@>‘ CF.<+>!‘ .>CH10>D‘ +@>B‘ <+‘ 8! ‘ @ ?!‘ <??#B 0=‘<0‘<,>P .<=>‘ 1‘‘ ‘1#.‘<0D‘ <‘ @<%‘‘+1‘ <‘ ‘<B %E!‘ U,>?‘ +@>‘ ?#B!‘ +1+<%T‘ 1‘‘<$1#+‘ ! ‘ 0D , D#<%?!‘ <=.>><$%E‘ +1‘ +@>‘ C1BA#+<+ 10‘ 1‘‘ >.0<%D>G‘ @>.>‘ ?b%"++%>‘ .><?10‘ ‘1.‘ ?#AA1? 0=‘ +@<+!‘ +@>‘ <C+#<%‘ <B1#0+‘ J1#%D‘ ?#‘‘>.‘ D B 0#+ 10‘ 0‘ +@>‘ @<0D?‘ 1‘‘> +@>.‘ +@>‘ />J ?@‘ 1.‘ <?+ % <0‘ <#+@1. +E!‘ ? 0C>‘ +@>‘ 10>‘ B =@+‘ 0<+#.<%%E‘ $>‘ %>D‘ +1‘ >K<==>.<+>!‘ 0‘ 1.D>.‘+1‘@> =@+>0‘ ?EBA<+@E

A‘ 3%), A‘ . ,')‘ 4C‘ A ,‘ %(($) %)>') %‘ #$,) %), %‘ DH ‘,‘B $5‘%33 %‘ A%‘ A‘ 3 3$%,)‘ 0‘ A‘ @,)'5 1‘ 0‘ *% , ‘ F($,. ‘! 0‘ : %)%5%‘ B%‘A)‘ ,1% 5%‘ 6 ‘ . (,) ‘ ‘A $ A 5 !‘ P ‘ 1!5‘%‘ %‘ (%5‘5‘8, !‘ 3)5,(‘ !‘ !X‘ A,‘% B; ,)‘‘0 $‘%)5‘%‘A% 0‘ ‘%‘ 0%1,C‘ B $5‘ 1%@‘ A‘ BA ‘ 3 3$; %,)‘ /6 !‘ ‘ %33 %‘ 0 1‘A‘ % 1)‘ 0‘)%5 G‘ A%‘A‘@,)'5 1‘ 0‘*% , ‘( ); %,) 5‘0,. >,F A‘ 0‘ A‘ BA ‘ %1 $)‘ 0‘? B‘,)‘ A‘ 3%), A‘ 1)%(AC!‘ A,‘3 3 ,)‘,0‘ I ‘4‘ (,. 5‘%‘ A‘ ; %‘B $5‘%1 $)‘,)‘ $)5‘)$1‘ 4,>‘ ‘ / ‘ ‘)‘3 ‘( )!

0‘ A‘ BA ‘ 3 3$%,)‘ 0‘ A‘ @,)'5 1!‘ B‘,‘,‘ 1%),0 C‘ ,13 4%4 ‘ A%‘ ‘ % ‘‘%‘3 ; ,)‘ 0‘ A‘ BA ‘)%,)‘ ( ); 3,($ $‘ 1 . ‘0‘ B % A‘ %)5‘,) ,')(‘($5‘A%.‘4)‘T A 5‘ ‘ ,'A C‘,)‘%‘3 , ,(%‘% ; 3 (‘%‘ A‘? B‘(%,) C‘B ‘ A%. ‘ %1 C‘ $41, 5‘0 ‘ ‘1%)C‘C % ‘ ‘ A‘1 ‘B%);)‘ ,)5,'), , ‘ B, A $‘ , ; %)(‘4 ‘0,)% C‘ A%‘ A‘ 3%;), A‘' .)1)‘B $5‘A%. .); $ 5‘)‘ ‘4 5‘%‘ 1 % $ ‘%‘ A‘4%), A1)‘ 0‘ ‘)$1 $‘ %)5‘3 B 0,,‘%‘ (% ‘%)5‘ A%‘ ‘B, A‘%‘0 B‘3 (%$,) ‘%3; 3%) C‘%‘B $5‘4‘ 2$, 5‘ 0‘5,.,)'‘ $‘ 0‘A‘($) C‘_‘ .,)‘'‘%)'‘ 0',3, !

0&' +@>' C<%<B + >?' 1'' @ ?' 0<+ 10!' <0D' +@>' 1+@>.' +1'
B<=0 'E' <?' '<.' <?' A1?? $%>' +@>' =%1. 1#?' +. #A A@?M 1''
+@>' .1?? T

@>' D>+. B>0+' 0C#..>D' $E' +@>' ?+<+>!' @1J>,>.!' ?'
01+' '1#0D>D' ?1' B#C@' 10' <0E' 0#B>. C<%' >?+ B<+>!' <?'
10' +@>' ?#$+.<C+ 10' 1'' +@>' B>C@<0 C<%' ?H %%!' 0+>%% P
=>0C>!' <0D' =>0>.<%' .>?1#.C>?' 1'' <0' 1.D>.%E!' 0D#?P
+. 1#?' A1A#%<+ 10' 0' +@ ?' , >J!' +@>' B ?C@ >'' J<?'
0C<%C#%<$%E' =.><+>.' +@<0' +@<+' 0'>..>D' $E' +@>' B>.>'
0#B$>.' 1''+@>&'>K %>DL' <0D' <%+@1#=@'>,>0' +@ ?' B =@+'
@<,>' $>>0' =.<D#<%%E' .>A< .>D' 0' <' C1#0+.E' <%%1J>D'
+@>' '.>>' <0""' @><%+@'#%' D>,>%1AB>0+' 1'' +?' >0>.= >?!'
E>+' 0' A< F' +@ ?' J<?' ?1' >''>C+#<%%E' C1#0+>.<C+>D' $E'
+@>' 0F# ? + 10!' M<0D' 1+@>.' C<#?>?!' 0' +@>' '1%%1J 0='
C>0+#.E!' +@<+' +@>' %1??' B<E' $>' D>>B>D' ..>+. >,<$%>

@>' >KA#%? 10' 1'' ?1' 0#B>.1#?' <' C%<??' 1'' ?#$">C+?'
$E' <0' 0D>A>0D>0+' <C+' 1'' +@>' ?1,>.> =0!' B =@+' J>%%'
$>' .>=<.D>D' <?' <0' >01.B1#?' ?+.>+C@' 1'' A.>.1=<+ ,>!'
<%+1=>+@>.' 0C1BA<+ $%>' J +@' <0E+@ 0=' % H>' <' '.>>'
=1,>.0B>0+' #+!' +1' "#D=>' +@>' B<++>.' . =@+%E!' J>'
B#?+' +<H>' 0+1', >J' +@>' <C+#<%' A1? + 10' 1''+@ ' />J?'
<+' +@<+' + B>' <.' '.1B' '1.B 0=' <0' 0+>=.<%' A<.+' 1''
+@>' C1BB10J><%+@!' +@>E' J>.>' .>=<.D>D' <?' <% >0' +1'
+!' <?' <' B>.>' >KC.>?C>0C>!' J@ C@!' ?1' '<.' '.1B' C10+. P
$#+ 0=' +1' +@>' @><%+@'#%' <C+ 10' 1'' +@>' $1DE' A1% + C!'
J<?' 01#. ?@>D' $E' +?' , C 1#?' @#B1#.?!' <0D' B =@+' $>'
%1AA>D' 1''' <+' <0E' + B>!' J@>0' +@>' @><%+@' 1''+@>' ?E?M

L' 1%5 G'8, !5' ' C ' 5' 3%)%!' 1!' ,,!' ,4!' FF.,!M J'
!' (!' (F! J) ' 8, ' 5' N$, %')%'5' %')' 1!' .!'
,)2$, , ,)' 5K 3%') ' 1!' ,!' 0 !' H!
(!' .,,!' (!' .,,! J %,%)%' 8, !

7 ;5 ' ' ' /

+>B' D>B<0D>D' +' <.' '.1B' $> 0=' A.1+>C+>D' $E' +@>' %<J?!' +@>' 10%E' < B' 1'' +@>' %<J?' 0' .>'>.>0C>' +1' +@>B' J<?' +1' D>' 0>' B1.>' A.>C ?>%E' +@> .' C , %' 0C<A<C + >?!' <0D' +1' D.<J' +@>' % 0>' 1'' D , ? 10' B1.>' $.1<D%E' $>P +J>>0' +@>B' <0D' +@>' @. ?+ <0?' ,>0' +@ ?' @#B P % <+ 10' $E' 01' B><0?' ?<+ ?' >D' +@>' 0<+ 10<%' A.>"#D C>?!' <?' ?' >, 0C>D' $E' +@>' =.><+' 0#B$>.' 1'' +#B#%+?' <0D' B<??<C.>?' 1'' J@ C@' +@>E' J>.>' +@>' , C+ B?' 0' U@>?>' C .C#B?+<0C>?!' +' ?>>B>D' +1' $>' 01' =.><+' <??#BA+ 10' 1'' <#+@1. +E' +1' A.101#0C>' ?>0+>0C>' 1'' >K %>' <=< 0?+' +@1?>' J@1B' A#$% C' 1A 0 10' @<D' ?1' %10=' A.1?C. $>D' <?' >0>B >?' +1' +@>' ?+<+>' +' J<?' 10%E' C<..E 0=' 0+1' >''>C+' +@<+' 1A 0 10!' >KA.>??>D' <?' +' @<D!'$>>0' 0' <' =.><+' ,<. >+E' 1'' J<E?'L' <0D!' <?' '<.' <?' +@>' . =@+?'T1'' +@>' 0<+ 10' J>.>' C10C>.0>D!' +@>' $<0 ?@B>0+' 1'' <' ? 0P =%>' A<0 <.D' J1#%D' @<,>' $>>0' @>%D' <' =.1??>.' , 1%<P + 10' 1'' +@>B' +@<0' +@<+' 1'' +@>' J@1%>' .<C>' 1'' ?.<>%P +>?

+M' @<?' $>>0' C1BB10' J +@' B1D>.0' @ ?+1. <0?' +1' D>+>C+' <' A. 0C A<%' B1+ ,>' '1.' +@>' >KA#%? 10' 1'' +@>' />J?' 0' +@>' <,<. C>' 1'' +@>' =1,>.0B>0+' +' ?' 10%E' 0>C>??<.E!' @1J>,>.!' +1' +.<0?A1.+' 1#.?>%,>?' $<CH' +1' +@1?>' + B>?!' +1' ' 0D' +' 0' A>.'>C+' <CC1.D<0C>' J +@' +@> .' ?A . +!' <+' %><?+' 0' A< 0' +' ?' 0D>>D' 0C.>D $%>!' +@<+' A>.?10?' A1??>?? 0=' +@>' A1% + C<%' ?<=<C +E' 1'' >.P D 0<0D' <0D' ?<$>%%<' C1#%D' 0D#%=>' <' +>BA1.<.E' C#P A D +E!' <+' +@>' ?<C. ' C>' 1'' +@>' B1?+' BA1.+<0+' <0D' A>.B<0>0+' 0+>.>?+?!' C10,>.+ 0=' +@> .' J><%+@ >?+' D ?P +. C+?' 0+1' <' J %D>.0>??!' <0D' D ?A>1A% 0=' +@>B' 1'' <' A1A#%<+ 10' J@1' ( ) ,4$ 5' 4 C)5' <%%' A 7' 01+

10%E +1 +@> =>0>.<% .>?1#.C>?! $#+ +@> D .>C+ .>,>0#>?
1 '+@> C.1J0 L <B><?#.> ?1 B<0 '>?+%E #0?1#0D <?
+1 %><D >,>0 <$<.$<. <0 B10<.C@ 1 '+@<+ D<E +1 >KP
C%< B! W 1 +@>E C<%% +@ ? >.D 0<0D <A1% + C A. 0C>!
J@1 C<0 +@#? BA1,>. ?@ @ ? 1J0 H 0=D1B <0D >0P
. C@ 1#.?ZRT +J1#%D ?>>B! 0D>>D! J@>0 +@>
B><?#.> @<D $>>0 D>+>.B 0>D 10! +@<+ +@> .<=10P
>?> B10<.C@ J<? J %% 0=! $E @ ? >KA>D >0+ 1 '?>F#>?P
+.<+ 10! +1 C10+.1% +? 1A>.<+ 10 0 ?#C@ <B<00>.' <?
+1 ?>C#.> +1 @ ? 1J0 ?#$">C+? +@> '#%% A>C#0 <.E $>0>P
' + 1 ' + ' 1 BA#+<+ 10 1 '+@ ? H 0D <++<C@>? +1
<?+ %> @> C%<#?> 1 '+@> 1.D 0<0C>! J@ C@ B =@+
0'>.' ?#C@! <D>? =0! 0+>.D C+ 0=' +@> >KA1.+<+ 10 1 '
=1%D <0D ? %,>.! J<? 10%E >0'1.C 0=' <' %<J' J@ C@
@<D $>>0 <%.><DE +J C>' >0<C+>D $E C1.+>? 0 +@>A.>P
?>0+ .> U0! <0D J@ C@ J<? D>>B>D 1 '?#C@ B1B>0+
+@<+ +@> 1''>0C> J<? B<D>' C<A +< d

> 0>>D %11H 01 '#.+@>.' '1.' +@> A. 0C A%>' 1 '<CP
+ 10 0 +@ ? C<?>' +@<0 +@> ?A . + 1 '.>% = 1#? $ =1+.E!
J@ C@ %>D +1 <? B %<.' >KA#%? 10 1 '+@> />J ? '.1B
0=%<0D! .<0C>! <. D 1+@>.' A<.+? 1 ' #.1A>! <? J>%%
<? '.1B 51.+#=<%! #0D>.' C .C#B ?+<0C>? 1 ' A>C#% <.'
<+.1C +E! <' >J E><.? %<+>. f 0D>>D! +@> ?A . + 1'

Q %+%G ! ' 4% (% ' C ')% > 5 ' ' C ' 5 ' %') '
5 ' %') ' 1! ,,! 3! ! J ' 1! ,,! 0 ! !
% %1 ' ' ,'! ' '!)> ')('% ' 5 ' DI '%)5
2$, , ! 3! I! % ' $ (,% ' DII! ' (3,>
0 ' Z')' $ A [' % A ' 4% > %(,)' 5 ' % ' C ' 5 ' C) '
(% 1 BA% ',)) ( ) C 1% @ ' ,4! . ,! , ! F. ,,,! C !
Z' "T,) '' 5,)%)5 B% '%' 3 , ,(f @> 51.+#=#>?> =1,>.0B>0+
*A , ,%) ' 1%@,) '' A ' ,) ' (%$ 5 % ' (A, 5)' 0 0 $)'
0 (A$ (A %)5 % ' 1$ $% C C % ' 0%' ' '$)5 ' '4 ' %@)'
$4 .,) ' ' %(A A -[0 1' A , ' 3%) ' %)5 %,) 5

A>.?>C#+ 10‘ D D‘ 01+‘ >KA .>‘ J +@‘ +@>‘ ' '+>>0+%‘ C>0P +#.E!‘ $#+‘ >K+>0D>D‘ '<.‘ 0+1‘ +@>‘ B1.>‘ %#B 01#?‘ A>P . 1D?‘ 1'‘ +@>‘ ?>,>0+>>0+@‘ <0D‘ > =@+>>0+@!‘ <0D‘ +@<+‘ +11‘ #0D>.‘ <‘ .#%>.‘ 1'‘ +@>‘ >0%<.=>D‘ C<A<C +E‘ 1'‘ .>D>P . C‘ +@>‘ .><+!‘ J@1?>‘ 0+1%>.<0C>‘ C1#%D‘ 01+‘ A%><D‘ 0‘ >KC#?>‘ +@>‘ $% 0D0>??‘ 1'‘ '<0<+ C ?B T‘ 1J‘ '<.‘ +@>‘ $<0 ?@B>0+‘ 1'‘ +@>‘ />J?‘ J<?‘ C10'1.B<$%>‘ +1‘ +@>‘ 1A 0 10?‘ 1'‘ +@>‘ B1?+‘ >0% =@+>0>D‘ C10+>BA1.<. >?‘ B<E‘ $>‘ =<+@>.>D‘ '.1B‘ +@>‘ >0C1B #B?‘ %<, ?@>D‘ 10‘ +?‘ <#+@1.?‘ '.1B‘ B1.>‘ +@<0‘ 10>‘ F#<.+>.‘ A<0 ?@‘ J. +>.?!‘ J +@1#+‘ >KC>A+ 10!‘ C>%>$.<+>‘ +‘ <?‘ <‘ ?#$% B>‘ ?<C. ' C>‘ 1'‘ <%%‘ +>BA1.<‘ 0+>.>?+?‘ +1‘ .>% = 1#?‘ A. 0P C A%>‘ @>‘ $>?+M 0?+.#C+>D‘ '1.> =0>.?!‘ 0‘ % H>‘ B<OMU 0>.!‘ @1J>,>.‘ +@>E‘ B<E‘ C10D>B0‘ +@>‘ D>+< %?‘ 1'‘ >K>P C#+ 10!‘ 1.‘ C1BB ?>.<+>‘ +@>‘ ?#''>. 0=?‘ 1'‘ +@>‘ />J?!‘ C1BB>0D‘ +@>‘ <C+‘ <?‘ >, 0C 0=‘ +@>‘ B1?+‘ % ,>%E‘ <0D‘ %<#D<$%>‘ G><%‘ '1.‘ +@>‘ +.#>‘ '< +@ '

,)‘ A‘ ($) +T‘ %‘ 0,‘ $4+ (‘ 0‘%‘ *A , ,%)‘ 5$(% ,)!‘ A‘ 5, ‘ ((% ,) 54C‘ A,‘ ($‘ 3 ., ,)‘ 1%C‘ 4‘ B‘ ,1%',) 5‘ 1%)C‘ 0‘ A‘ $)A%33C‘ 3%)‘ 1$5 5‘ A ,‘ (A,)‘ ‘ 5 ; 0 %‘ A‘ 5,)%)(‘ %)5‘ 1%)C‘ %,5‘ .,)‘ A%)5‘)‘ A 1; . !‘ %,%‘ C‘ $%(C‘ 1%@‘ A%‘ Y‘,‘ B%‘%‘ ' %‘ 1, %@‘ S,)‘ '',)‘ 1%)$‘ ‘ A,)@‘ 0‘ ( ). ,)'‘%)C‘? B‘ ‘ *A , ,%), C‘ 5‘) $'A‘ ‘3 ;) $)(‘ A‘)%1‘ 0‘ -[‘ 8‘ 0,F‘ A‘ ‘C % ‘ 0‘%'‘%‘ A‘ $ 1 ‘ ,1, !‘ ‘ $ 3%‘ $'$ %‘ 1!‘,,!‘ 3!‘ DH ! !‘ $) ‘ A%‘ ( )5) 5‘ B, A‘ A,‘ $ $%‘ ,)5$ C‘ A 1 ‘) ,%‘(A) ',(%‘0%(‘ %,. ‘ ‘ 1 5 1‘? B, A‘ A, ; C‘,) ‘%‘) ‘ ( ) %,) 5‘,)‘ A‘ ( )5‘. $1‘ 0‘A, ‘8, C‘ 0‘)'%)5‘ 5$,)'‘ A‘ ,55‘ ' ‘ 33!‘ D J ‹ ( )5‘ 5, !

A C‘B ‘% ‘ + (5‘0 1‘ E,))%‘ H!‘ A‘, ,4 % ‘%)5‘ ,)5 5‘1 ‘ ($ ‘ ', % ,)‘ 0‘ 5 ,(‘ ‘,)‘ 0)(‘ ‘A, ‘ ? B, A‘ $4+ (‘ %) 3 ‘ $‘ 4%(@‘ A‘ 5% @ ‘ 3 , 5‘ 0‘ A‘E, ,' A,(1)% (AC!‘ A‘ %5‘B, ‘ 0,)5‘%‘ $1 1% C‘ 0‘ A‘)%(1) L,)‘ A‘ A, 5‘ . $1‘ 0‘ , 1%)K‘ %' %4‘ 8, C‘ 0‘A‘? B‘ ‘ A‘%((13 , A 5‘%)5‘%1,%>

+ʻ C<OO1+ʻ $>ʻ D>0 >Dʻ +@<+ʻ A< 0!ʻ <+ʻ +@ ?ʻ A>. 1D!ʻ ?#.A<??>Dʻ B1?+ʻ 1'ʻ +@>ʻ 0<+ 10?ʻ 1'ʻ @. ?+>0D1Bʻ 0ʻ .>% = 1#?ʻ >0+@#? <?B!ʻ 1.!ʻ +1ʻ ?A><Hʻ B1.>ʻ C1..>C+%E!ʻ 0ʻ $ =1+.Eʻ @ ?ʻ ?!ʻ D1#$+%>??!ʻ BA#+<$%>ʻ +1ʻ +@>ʻ %10=ʻ J<.ʻ J +@ʻ +@>ʻ 1?%>B?!ʻ <0Dʻ +?ʻ .>C>0+ʻ =%1. 1#?ʻ ??#>!ʻ J@ C@ʻ ?J>%%>Dʻ >,>.Eʻ @><.+ʻ J +@ʻ >K#%+<+ 10!ʻ D ?A1? 0=ʻ +ʻ +1ʻ C10? #0B<+>ʻ +@>ʻ +. #BA@?ʻ 1'ʻ+@>ʻ .1??ʻ $Eʻ A#.=P 0=ʻ+@>ʻ %<0Dʻ '.1Bʻ <ʻ @>.>?Eʻ J@ C@!ʻ ?+.<0=>ʻ <?ʻ +ʻ B<Eʻ ?>>B!ʻ J<?ʻ ?C<.C>%Eʻ %>??ʻ D>+>?+>Dʻ +@<0ʻ +@<+ʻ 1'ʻ <@1P B>+ʻ 1+@ʻ +@>ʻ ?1,>.> =0?ʻ A<.+11Hʻ %<.=>%Eʻ 1'ʻ+@>?>ʻ '>>% 0=?ʻ +@ʻ .>=<.Dʻ +1ʻ ?<$>%%<!ʻ B1.>1,>.!ʻ +ʻ B#?+ʻ $>ʻ $1.0>ʻ C10?+<0+%Eʻ 0ʻ B 0D!ʻ <?ʻ @<?ʻ $>>0ʻ .>A><+>D%Eʻ .>B<.H>Dʻ 0ʻ +@>ʻ C1#.?>ʻ 1'ʻ+@ ?ʻ @ ?+1.E!ʻ +@<+ʻ ?@>ʻ @<Dʻ $>>0ʻ #?>Dʻ +1ʻ ?#..>0D>.ʻ @>.ʻ 1J0ʻ "#D=B>0+!ʻ 0ʻ B<+P +>.?ʻ 1'ʻ C10?C >0C>!ʻ +1ʻ +@1?>ʻ ?A . +#<%ʻ =#<.D <0?!ʻ J@1ʻ J>.>ʻ ?#AA1?>Dʻ 0ʻ +@<+ʻ <=>ʻ +1ʻ $>ʻ +?ʻ . =@+'#%ʻ D>A1? +P <. >?!ʻ <0Dʻ +@>ʻ 10%Eʻ C<?# ?+?ʻ J@1ʻ C1#%Dʻ ?<'>%Eʻ D>+>.P B 0>ʻ +@>ʻ D1#$+'#%ʻ % 0>ʻ 1'ʻ D#+Eʻ ?<$>%%< ?ʻ A 1#?ʻ D ?P A1? + 10!ʻ <0Dʻ @>.ʻ +.>B$% 0=ʻ ?1% C +#D>ʻ +1ʻ D ?C@<.=>ʻ @>.ʻ D#+E!ʻ <+ʻ J@<+>,>.ʻ C1?+ʻ 1'ʻ A>.?10<%ʻ 0C% 0<+ 10!ʻ =.><+%Eʻ >0'1.C>Dʻ +@>ʻ A.>C>A+?ʻ 1'ʻ >D#C<+ 10ʻ 0ʻ +@ ?ʻ J<E!ʻ@>.ʻ,>.Eʻ, .+#>?ʻ$>C<B>ʻ +@>ʻ?1#.C>ʻ1'ʻ@>.ʻ>..1.?

4 ʻ) ,) ʻ ,(ʻ 5,ʻ , % ,>ʻ 3 ($ʻ %$5%4, , ʻ ., %ʻ ʻ 2$,% 5 %ʻ ,)ʻ A,ʻ % , ʻ)ʻ +$5,(,%ʻ 5 ($ʻ) ʻ ,',), ʻ 3,(>ʻ % 'Cʻ 1% @ʻ A%ʻ Yʻ Aʻ ʻ 5ʻ% ,2$%) $,$)ʻ,)ʻ ʻ($ʻ $00 ,)'ʻ 0ʻA ʻ? C ʻ ʻ-+ +ʻ 5 , % , ʻ ( ) ,) ʻ , ʻ))ʻ !+#ʻ =ʻ *ʻ , #ʻ"&! #ʻ # +!K 4 $% ʻ 5ʻA 1,) ʻ%ʻ ʻ(>ʻ # ʻB ʻ ʻ F 1ʻ% ʻ ʻ0, ʻ$ʻ % ʻ( ) ,5 %.,1$!Z ʻ ; *A , ,%) ʻB, Aʻ(11, % ,)![4$ʻ :)$) !ʻ%3!ʻ $ % ,ʻ !ʻ Aʻ:) ʻC ,%)ʻ)% '%ʻ !ʻ (,3ʻ 1!ʻFF, .! J (% ʻ ,)5 5ʻ%51, ʻ Aʻ1 % $ ʻ %; 8, !ʻ) ,0!ʻ%3!ʻ % %1 ʻ ʻ . $ 5ʻ 7Z Bʻ # ##ʻ *ʻ ,'!ʻ ʻ '!ʻ)2$, , !ʻ3!ʻ " "# !=ʻ Yʻ % A% (3 ,1 ʻ( )>

76 ‘ ;5 ‘ ‘ ‘ / ‘ ‘ 5

0'1.+#0<+>%ET?@>‘ % ,>D‘ 0‘ <0‘ <=>‘ <0D‘ ?+<+ 10‘ J@ C@‘ <++<C@>D‘ +1‘ +@>?>‘ >..1.?‘ +@>‘ B1?+‘ B1B>0+1#?‘ C10?>P F#>0C>? TO #+‘ J>‘ =%<D%E‘ +#.0‘ '.1B‘ +@>?>‘ D<.H‘ A.1?A>C+?‘ +1‘ <‘ $. =@+>.‘ A<=>‘ 1'‘ @>.‘ @ ?+1.E

Q‘) ‘ $1 ‘ $3‘ A, ‘ %(; 0% ‘ ,5 % ‘%)5‘,)( ) ,5 % ‘ %‘ ($) ‘ 0‘ A ‘ F3$,)‘J =% ,'); B, A‘ BA,(A‘ A C‘ A%5‘ ,) 3, 5‘ ,) '‘ A ‘0 B,)'‘ 1 ,. ‘ ‘ A ‘ %4 %‘ ‘BA 1‘A, C‘(%)) ‘ 3 ,)(,3%‘%') ‘ ‘,)‘ A ‘ 4$,) !‘ 0$ ‘ A ‘ 3 %, ‘ 0‘ ' %‘ B ; 8‘ A ‘ 1 % $ [‘A ‘ %C ‘ Z‘ 1%C‘) ‘ 0‘ 5, 3 , ,)‘ %)5‘ %)‘); A ‘ 0 5‘ ‘ A ‘ 0%)% ,(, 1‘ 0‘ ,'A) 5‘ 1,)5!Z‘ ‘)2!‘ 5K >‘ 2$ 1%5%‘ ‘ A ‘%.% ,(‘%)5‘ 3%') ‘ 1!‘ ‘ (! .,,!‘ (! F! $3 , ,)‘ 0‘ 5,)%)5‘ ‘ A

5 ‘ ;

5 ‘ ‘ ‘ O‘ ‘
‘ ‘ ‘ ‘

6:7!‘ 6:

‘ +@>‘ %<++>.‘ >0D‘ 1''‘ <E‘ 6:7!‘ +@>‘ A<0P
?@‘ ?1,>.> =0?‘ F# ++>D‘ .<0<D<!‘ $>+J>>0‘ J@ C@‘<0D‘
<0+<‘ ‘ +@>E‘ @<D‘ D , D>D‘ +@> .‘ + B>‘ ? 0C>‘ +@>‘
?#..>0D>.‘ 1''‘ +@>‘ 11. ?@‘ B>+.1A1%?‘ @>E‘ J>.>‘
1CC#A >D‘ D#. 0=‘ +@>‘ +J1‘ '1%%1J 0=‘ B10+@?‘ J +@‘ +@>‘
<''< .?‘ 1''‘ <?+ %>‘ 0‘ #=#?+‘ +@>E‘ , ? +>D‘ .<=10!‘
A.1A1? 0=‘ +1‘ >?+<$% ?@‘ +@> .‘ J 0+>.‘ .>? D>0C>‘ +@>.>‘ 0‘
1.D>.‘ +1‘ A.1, D>‘ '1.‘ +?‘ 0+>.0<%‘ <DB 0 ?+.<+ 10!‘ <0D‘
C10C%#D>‘ +@>‘ 0>=1+ <+ 10?‘ '1.‘ +@>‘ ' 0<%‘ ?#..>0D>.‘ 1''‘
1#?? %%10‘ <0D‘ >.D<=0>‘ $E‘ .<0C>!‘ +1‘ J@ C@‘ +@>?>‘
A.1, 0C>?‘ @<D‘ $>>0‘ B1.+=<=>D‘ $E‘ >.D 0<0D ?‘ '<+@>.!‘
/1@0‘ !‘ A.1, 0=‘ >,>.‘ ? 0C>‘ <‘ '.# +'#%‘ ?1#.C>‘ 1''‘
D A%1B<CE!‘ J@ C@‘ +@.><+>0>D‘ B1.>‘ +@<0‘ 10C>‘ +1‘ +>.P
B 0<+>‘ 0‘ 1A>0‘ .#A+#.> &

>.D 0<0D‘ <0D‘ ?<$>%%<‘ <.. ,>D‘ 0‘ .<=10‘ 10‘ +@>‘
4+@‘ 1''‘ #=#?+!‘ <CC1BA<0 >D‘ $E‘ 5. 0C>‘ /1@0‘ <0D‘ +@>‘
0'<0+<?!‘ <0D‘ <‘ $. %% <0+‘ +.< 0‘ 1''‘ <?+ % <0‘ 01$%>?‘
0‘ +@> .& A.1=.>??‘ +@.1#=@‘ +@>‘ C1#0+.E‘ +@>E‘ J>.>‘
>,>.EJ@>.>‘ .>C> ,>D‘ J +@‘ +@>‘ B1?+‘ % ,>%E‘ >0+@#M
‘

? <?.<‘ @>‘ J@1%>‘ @<+ 10‘ ?>>B>D‘ +1‘ <$<0D10‘ +?>%’‘ +1‘ "#$ %>>‘ <+‘ +@>‘ <AA.1<C@‘ 1’‘ +?‘ %%#?+. 1#?‘ ?1,>P .> =0?!‘ J@1?>‘ @>.1 C‘ C10?+<0CE‘ @<D‘ .>?C#>D‘ A< 0‘ '.1B‘ +@>‘ D>+>?+>D‘ >BA .>‘ 1’‘ +@>‘ <.<C>0?‘ '+>.‘ D>,1+ 0=‘ ?1B>‘ B10+@?‘ +1‘ +@>‘ 0+>.0<%‘ A1% C>‘ 1’‘ +@>‘ H 0=D1B!‘ +@>‘ C1#.+‘ +.<0?'>..>D‘ +?‘ .>? D>0C>‘ +1‘ <+<P %10 <!‘ J@1?>‘ C<A +<%‘ +‘ .><C@>D‘ <$1#+‘ +@>‘ B DD%>‘ 1’‘ C+1$>.‘ #. 0=‘ +?‘ D>+>0+ 10‘ 0‘ +@ ?‘ A%<C>!‘ >.D P 0<0D ?‘ C<.>>.‘ J<?‘ J>%%M0 =@‘ $.1#=@+‘ +1‘ <0‘ #0+ B>%E‘ C%1?> T

+‘ J<?‘ <‘ =11D‘ 1%D‘ C#?+1B‘ 1’‘ <+<%10 <!‘ %10=‘ ? 0C>‘ '<%%>0‘ 0+1‘ D>?#>+#D>!‘ '1.‘ +@>‘ B10<.C@‘ +1‘ A.>? D>‘ 0‘ +@>‘ +. $#0<%?‘ 1’‘"#?+ C>!‘ <+‘ %><?+‘ 10C>‘ <‘ J>>H!‘ '1.‘ +@>‘ A#.A1?>‘ 1’‘D>+>.B 0 0=‘ +@>‘ ?# +?‘ 1’‘ +@>‘ A11.>.‘ C%<??>?‘ >?A>C <%%E!‘ J@1‘ C1#%D‘ 01+‘ <''1.D‘ +@>‘ B1.>‘ >KA>0? ,>‘ '1.B?‘ 1’‘ % + =<+ 10‘ S 0=‘ >.D 0<0D!‘ 0‘ C10'1.B +E‘ J +@‘ +@ ?‘ #?<=>!‘ @>%D‘ <‘ C1#.+‘ 0‘ +@>‘ @1#?>‘ 1’‘ D>A#P +<+ 10‘ 10‘ +@>‘ 9+@‘ 1’‘ >C>B$>.!‘ $> 0=‘ +@>‘ , = %‘ 1’‘ +@>‘ 10C>A+ 10‘ 1’‘ +@>‘ .= 0‘ +‘ 0110!T‘ <?‘ @>‘ J<?‘ A.>A<. 0=‘ +1‘ F# +‘ +@>‘ A<%<C>!‘ <'+>.‘ +@>‘ C10C%#? 10‘ 1’‘ $#? 0>??!‘ @>‘ % 0=>.>D‘ 0‘ +@>‘ .><.‘ 1’‘ @ ?‘ .>+ 0#>!‘ C10.‘ ,>.? 0=‘ J +@‘ ?1B>‘ 1’‘ +@>‘ 1'' C>.?‘ 1’‘ +@>‘ C1#.+‘ ?‘ +@>‘ A<.+E‘ J<?‘ ??# 0='.1B‘ <‘ % ++%>‘ C@<A>%‘ C10+ =#1#?‘ +1‘ +@>‘ .1E<%‘ ?<%110!‘ <0D‘ "#?+‘ <?‘ +@>‘ H 0=‘ J<?‘ U%>M ?C>0D 0=‘ <‘ '% =@+‘ 1’‘ ?+< .?!‘ <‘ .#'' <0‘ D<.+>D‘ '.1B‘ <0‘ 1$?C#.>‘ .>C>??‘ 0‘ J@ C@‘ @>‘ @<D‘ C10C><%>D‘ @ B?>%’‘ ><.%E‘ 0‘ +@>‘ B1.0 0=!‘ <0D< B>D‘ <‘ $%1J‘ J +@‘ <‘ ?@1.+‘ ?J1.D!‘ 1.‘ H0 '>!‘ <+‘ +@>‘ $<CH‘ 1’‘ >.D 0<0D ?‘ 0>CH

1.+#0<+>%E +@> >D=> 1 '+@> J><A10 J<? +#.0>D $E <
=1%D C@< 0 1. C1%%<. J@ C@ @> J<? 0 +@> @<$ + 1 '
J><. 0= + 0'% C+>D! @1J>,>.! < D>>A J1#0D $>P
+J>>0 +@> ?@1#%D>.? >.D 0<0D 0?+<0+%E C. >D
1#+! Q + <.E A.>?>.,># ?Z +.><?10! +.><?10 ZR <0D
@ ? <++>0D<0+?! .#?@ 0= 10 +@> <??<?? 0! ?+<$$>D @ B
0 +@.>> A%<C>? J +@ +@> . A10 <.D?! <0D J1#%D @<,>
D>?A<+C@>D @ B 10 +@> ?A1+! @<D 01+ +@> H 0=! J +@
@ ? #?#<% A.>?>0C> 1 ' B 0D! C1B B<0D>D +@>B +1 D>P
? ?+! <0D +<H> +@> B<0 <% ,>! +@<+ +@>E B =@+ <?C>.P
+< 0 +@> .><% <#+@1.? 1 ' +@> C10?A .<CE @ ? J<?
D10> <CC1.D 0=%E! <0D >.D 0<0D! '< 0+ 0= J +@ %1??
1 '$%11D! J<? C<.>'#%%E .>B1,>D +1 @ ? <A<.+B>0+? 0
+@> .1E<% A<%<C> T

@> .>A1.+ 1 '+@> C<+<?+.1A@> ?A.><D % H> J %D' .>
+@.1#=@ +@> C +E %% C%<??>? J>.> +@.1J0 0+1 C10P
?+>.0<+ 10 $E ?1 '1#% <0 <C+! J@ C@ ?>>B>D +1 C<?+ <
?+< 0 10 +@> @101#. <0D =11D '< +@ 1 '+@> <+<%<0?
1B> ?#?A>C+>D + +1 $> +@> J1.H 1 '<, 0D C+ ,>
11.! 1+@>.? 1 '<D ?<AA1 0+>D C1#.+ >. @> F#>>0!
J@1 @<D ?J110>D 10 ' .?+ .>C> , 0= 0+>%% =>0C> 1 '
+@> >,>0+! ?#?A>C+>D +@> <0C >0+ >0B +E 1 '+@> <+<P
%<0?! J@1 @<D ?@1J0 ?#C@ D>+>.B 0>D 1AA1? + 10 +1
@>. @#?$<0D 0 @ ? ><.%E E1#+@ @> =<,> 0?+<0+
1.D>.? +1 @1%D 0 .><D 0>?? 10> 1 '+@> =<%%>E? %E 0= 0
+@> A1.+! 0 1.D>. +1 +.<0?A1.+ @>. C@ %D.>0 '.1B +@>

L N$, %)% 5 %') J 4% (%)% D>%1? C 5
1! E IX ! 6! J 1% 5 G %') 1!,,!0 ! 6! J :%
8, 5 C *% ,(! !(! ,)5 G 5 *% 4%+%)% !
(F.,! J :% ,4%C * 13! 8, %0, 0 ! J #$,)($%')% 5 .,;
5 3%,,% 1!,,! 33! / I /H! 5 ! % ! 2$,)(! D 5,% ! H!

A%<C>!ʻ <?ʻ ?@>ʻ '><.>Dʻ +@>ʻ C1O?A .<CEʻ B =@+ʻ $>ʻ D>? =O>Dʻ +1ʻ >B$.<C>ʻ 1+@>.ʻ , C+ B? T

@>ʻ A1A#%<C>!ʻ Oʻ +@>ʻ B><Oʻ J@ %>!ʻ <??>B$%>Dʻ Oʻ =.><+ʻ O#B$>.?ʻ .1#ODʻ +@>ʻ A<%<C>ʻ J@>.>ʻ +@>ʻ H O=ʻ %<Eʻ %%ʻ '>>% O=?ʻ 1'ʻ @1?+ % +Eʻ @<Dʻ %1O=ʻ? OC>ʻ= ,>Oʻ J<Eʻ +1ʻ D>,1+>Dʻ %1E<%+Eʻ +1J<.D?ʻ <ʻ =1,>.0B>O+ʻ J@ C@ʻ @<Dʻ #O '1.B%Eʻ.>?A>C+>Dʻ +@>ʻ% $>.+ >?ʻ 1'ʻ +?ʻ ?#$">C+?!ʻ <ODʻ J@1?>ʻ A<+>.O<%ʻ ?J<Eʻ @<Dʻ ?>C#.>Dʻ ? B %<.ʻ $%>?? O=?ʻ +1ʻ <.C>%1O<ʻ J +@ʻ +@>ʻ .>?+ʻ 1'ʻ +@>ʻ >BA .>ʻ @>Eʻ +@.1O=>Dʻ .1#ODʻ +@>ʻ $# %D O=!ʻ C.E O=ʻ 1#+ʻ +@<+ʻ +@>ʻ H O=ʻ J<?ʻ ?%< O!ʻ <ODʻ D>B<OD O=ʻ +@<+ʻ @ ?ʻ B#.D>.>.?ʻ ?@1#%Dʻ $>ʻ D>% ,>.>Dʻ #Aʻ +1ʻ +@>B ʻ >.D O<OD!ʻ >KP @<#?+>Dʻ <?ʻ @>ʻ J<?!ʻ J1#%Dʻ @<,>ʻ A.>?>O+>Dʻ @ B?>%'ʻ <+ʻ +@>ʻ J OD1Jʻ 1'ʻ @ ?ʻ <A<.+B>O+!ʻ $#+ʻ J<?ʻ A.>,>O+>Dʻ '.1Bʻ B<H O=ʻ +@>ʻ >''1.+ʻ $Eʻ @ ?ʻ A@E? C <O?ʻ +ʻ J<?ʻ J +@ʻ =.><+ʻ D '' C#%+Eʻ +@<+ʻ +@>ʻ A>1A%>ʻ J>.>ʻ <+ʻ %>O=+@ʻ ?<+ ?' >Dʻ +@<+ʻ @>ʻ J<?ʻ ?+ %%% , O=!ʻ <ODʻ +@<+ʻ +@>Eʻ ' O<%%Eʻ C1O?>O+>Dʻ +1ʻ D ?A>.?>!ʻ 1Oʻ +@>ʻ <??#.<OC>ʻ +@<+ʻ +@>ʻ <??<?? Oʻ ?@1#%Dʻ $>ʻ $.1#=@+ʻ +1ʻ C1OD =Oʻ A#O ?@B>O+

@>ʻ H O=ʻ ?ʻ J1#OD!ʻ J@ C@ʻ D Dʻ O1+ʻ <AA><.ʻ D<OP =>.1#?ʻ <+ʻ ' .?+!ʻ =.<D#<%%Eʻ >K@ $ +>Dʻ B1.>ʻ <%<.B O=ʻ ?EBA+1B?ʻ O>ʻ 1'ʻ +@>ʻ $1O>?ʻ J<?ʻ '1#ODʻ +1ʻ $>ʻ '.<CP +#.>D!ʻ <ODʻ <ʻA<.+ʻ 1'ʻ +ʻ J<?ʻ .>B1,>Dʻ $Eʻ +@>ʻ ?#.=>1O?

Lʻ U!ʻ % Cʻ 3$ʻ 3 >ʻ % $1ʻ 3!ʻ (FF.!ʻ Jʻ *$%5ʻ ʻ %%(, ʻ !ʻ (!ʻ (F.,!J 4% (%ʻ Cʻ 5ʻ %')ʻ $4,ʻ $3 %! Aʻ ' %ʻ 4 ʻ Oʻ E , %ʻ BA ʻ 1, %($ $ʻ ,)'% B%Cʻ %)) $)(5ʻ 1ʻ5, % ʻ ʻ Aʻ 1)% (ACʻ B%ʻA % 5ʻ ʻ ,@ʻ %ʻ Aʻ ,1ʻ Oʻ A,ʻ% %$ʻ)ʻ 5,)%)5ʻ 4 ,)'ʻ Aʻ 0,0Aʻ ,1 ,)(ʻ Aʻ $4. ,)ʻ Oʻ Aʻ @,)';5 1ʻ 4Cʻ Aʻ !ʻ Aʻ0 $ Aʻ B%ʻ)ʻ Aʻ% % ,)%,)ʻ Oʻ Aʻ ,)2$, ʻ 4$!ʻ ʻBA,(Aʻ, ʻ %4, A 5ʻ 4Cʻ %ʻ (ʻ Oʻ ' 5ʻ A 5 Fʻ B,) %ʻ 3 5ʻ 4Cʻ !ʻ , 'ʻ 1 ʻ,)ʻA, ʻ , >ʻ ($ ʻ E% , ʻ 5ʻ 8, ,%ʻ 33!ʻ 3B"ʻ 3BH

0 +@> ?>,>0+@ D<E @ ? ? +#<+ 10 J<? C10? D>.>D >K+.>B>%E C. + C<% #. 0=+@ ? + B>! +@>F#>>0 J<? C10?+<0+%E $E @ ? ? D>! J<+C@ 0= J +@ @ B D<E <0D 0 =@+! <0D <DB 0 ?+>. 0= <%% @ ? B>D C 0>? J +@ @>. 1J0 @<0D +%>0=+@! +@> #0'<,1#.<$%> ?EBA+1B? E >%D>DL <0D @ ? >KC>%%>0+ C10?+ +#+ 10 >0<$%>D @ B ?1 '<.'+1 .>C1,>.! +@<+ 0 %>?? +@<0 +@.>> J>>H? @> J<? <$%> +1 ?@1J @ B?>%'+1 +@> >E>? 1'@ ? <0K 1#? ?#$">C+?! J@1 =<,> +@>B?>%,>?! #A +1 < D>% . #B 1' "1E! 1''>. 0= +@<0H?= , 0=? <0D =.<+>'#% 1$%<+ 10? 0 +@> C@#.C@>?L J@ %> B<0E <A %=. B<=>! J@ C@ @<D $>>0 ,1J>D '1.' @ ? .>?+1.<+ 10 +1 @><%+@! J<? A>.P '1.B>D $E +@> =11D A>1A%>1' <.C>%10<! J +@ 0<H>D '>>+!<0D >,>0 10 +@> .' H0>>?!<B10= +@> J %D ? >..<? +@<+ ?#..1#0D>D +@> C +E

@> <#+@1.' 1'+@> C. B> A.1,>D +1 $> < A><?<0+! <$1#+ ? K+E E><.? 1' <=>! 1' +@<+ @#B$%> C%<??! + (<? + J<? +>.B>D! J@ C@ >.D 0<0D @<D $>>0 ?1 0?+.#B>0+<% ?1B> '>J E><.? ? 0C> 0 .>P %><? 0= '.1B +@> $<?>.' <0D B1.> =. 0D 0= A< 0? 1' ?>., +#D> @> B<0 <AA><.>D +1 $> 0?<0>L <%%>= 0=! 0 , 0D C<+ 10 1'@ ? C10D#C+! +@<+ @> J<? +@> . =@+P '#% A.1A. >+1.' 1' +@> C.1J0! J@ C@ @> >KA>C+>D +1 1$+< 0 $E >.D 0<0D ? D><+@ > D>C%<.>D @ B?>%' J %% 0=! @1J>,>.! +1 = ,> #A @ ? A.>+>0? 10?! 10 C10P D + 10 1'$> 0= ?>+ <+ % $>.+E @> H 0=! C10, 0C>D 1' @ ? <% >0<+ 10 1' B 0D! J1#%D @<,> D ?C@<.=>D @ BL $#+ +@> <+<%<0?! 0D =0<0+ <+ +@> .>A.1<C@ J@ C@ ?#C@ <' C. B> ?>>B>D +1 <++<C@ +1 +@> .' 1J0 @101#.! <0D A>.@<A? D ?+.#?+ 0= +@> A%><' 1' 0?<0 +E

+@1#=@+ + 0>C>??<.E +1 >KA <+> + $E +@> $%11D 1'
+@> 1''>0D>.! <0D C10D>B 0>D +@> #0@<AAE J .>+C@
+1 +@> D.><D'#% D11B 1'' <' +.< +1 .L +@> A.>% B 0<.E
$<.$<. + >?' 1''+@> ?>0+>0C>! @1J>,>.! J>.> .>B ++>D!
<+ +@> 0+>.C>?? 10 1''+@> F#>>0 T

0 +@> ?A. 0=' 1'' 6: ! J@ %> +@> C1#.+ J<?' ?+ %% <+
<.C>%10<! %>++>.?' J>.> .>C> ,>D '.1B @. ?+1A@>.'
1%#B$#?! <001#0C 0=' @ ?' .>+#.0 +1 A< 0! <0D +@>
?#CC>??'#% <C@ >,>B>0+ 1'' @ ?' =.><+>0+>.A. ?> $E +@>
D ?C1,>.E 1'' %<0D $>E10D +@> J>?+>.0 1C><&0'X @>
D>% =@+ <0D <?+10 ?@B>0+ .< ?>D $E +@ ?' 0+>%% =>0C>
J>.> A.1A1.+ 10>D +1 +@> ?C>A+ C ?B J +@ J@ C@ @ ?'
A.1">C+ @<D $>>0 1. = 0<%%E , >J>D @> ?1,>P
.> =0?' J>.> 01J ' %%>D J +@ <' 0<+#.<% BA<+ >0C>' +$
<?C>.+< 0 +@> >K+>0+! <0D 1+@>.' A<.+ C#%<.?' 1'' +@>
BA1.+<0+ D ?C1,>.EL <0D +@>E +.<0?B ++>D 0?+<0+
0?+.#C+ 10?' +1 +@> <DB .<% +1 .>A< .' +1 <.C>%10<!
<?' ?110 <?' @> ?@1#%D @<,> B<D> +@> A.>% B 0<.E
<..<0=>B>0+?' '1.' +@> '#.+@>.' A.1?>C#+ 10 1'' @ ?' >0M
+>.A. ?>M+

! ! ,($ 0 ! !J ! % C 3$ 3, ! 3! (FF.! (FF.,,! (FFF,! J N$, %)% 5 %') 1! .! 0 ! ! J *$ % 5 % %(, ! (! (, ! J : % ,4%C %0 A% B,) ' A %; 5 K 0 ,)' B, A A% 0 % ($1) 0 A ,)A$1%) ($, ,)0 ,(5) A 1, %4 1%) ( )($5 B, A A (10 %4 % $%)(Y 3 %A '%) 3 ,1 3 (1),% C 1, ,(5,% 5 % C)%![P8, ! 1!.,,! ,4! F,F! (%3! ,!

B ,)4C %4 % A ( )0)%)5 5 %%. % 5$,)' A A$ 4%)5K ,) A B A 5 3%)F, C 0 A B) 1,)5 % B % A% 0 A (, ,G) 0 % ( )% %A, (, ,(% , $%,) 0$), A; ,)' %4$)5%) . ,5)(,0 , B) 5 5 0 A)5) 0 A % %)5 A B%)A A 0 A ( )+$'% % %(A1) ! * ; 3)5! 3, ! %3! 1! 5 (%5! 1! .,! 8$! ! 0 8 %)5,% ((,5)

@> =.><+ 0<, =<+1. @<D ?#CC>>D>D! <? ? J>%%
H01J0! <'+>. < ,1E<=> +@> 0<+#.<% D '% C#%+ >? 1'
J@ C@ @<D $>>0 B#C@ <#=B>0+>D $E +@> D ?+.#?+
<0D B#+ 01#? ?A . + 1' @ ? '1%%1J>.?! 0 D>?C.E 0=
%<0D 10 . D<E +@> 7+@ 1' C+1$>. 6:7 '+>.
?1B> B10+@? ?A>0+ 0 >KA%1. 0= +@> D>% =@+'#% .>P
= 10? 01J '1. +@> ' .?+ + B> +@.1J0 1A>0 +1 +@>
>E>? 1'<0 #.1A><0! @> >B$<.H>D 0 +@> B10+@ 1'
/<0#<.E 6: ! '1. A< 0 0> 1'@ ? ,>??>%? @<D
A.>, 1#?%E '1#0D>.>D! <0D <01+@>. @<D D>?>.+>D @ B!
?1 +@<+ @> J<? %>'+ <%10> +1 .>+.<C> @ ? C1#.?> <C.1??
+@> +%<0+ C '+>. < B1?+ +>BA>?+#1#? ,1E<=>T @>
J<? C1BA>%%>D +1 +<H> ?@>%+>. 0 +@> <=#?! ?1.>%E
<=< 0?+ @ ? 0C% 0<+ 10 T > >KA>. >0C>D! @1J>,>.!
+@> B1?+ @101#.<$%> .>C>A+ 10 '.1B +@> 51.+#=#>?>
B10<.C@ /1@0 ! J@1 D D <BA%> "#?+ C> +1 +@>
=.><+ F#<% + >? 1' 1%#B$#?! <%+@1#=@ @> @<D '< %>D
+1 A.1' + $E +@>B ' '+>. < $. >"D>%<E! +@> <DB .<%

% ' (! ,! ,4! ,,! (%3! ,,,! J '
$) G 8, '5 ' $. ' $)5 '
,4! ,.! (! F,,,! F,.!
* 14 ' ( )($5 ' % '
%55 5')'A, '% ,.%'% ' , ;
4)' ' A ' % $ ' %)(A G',)'
A ' 0 B,)'' ' B,)'' 1 <'
Y' '3 (,)' 4 '1%5 '0 ;
,.% 'A 5' 13 '4'0, 5'B, A'
4 %)(A '%)5'0 B '0 '*A , '
+ ,(')' % A'% ' ,)' A %.)'
,)''0$ $ ' 5 13 ,)' 0' $!'
'$' + ,('% '0 'A ' 1;
3 %'4) 0, ' ,@ C' ' $ ') '
1 C' ' 3%,)'4$' '% '* 0,5 >'
)5 1![' ' ,1 'E,%' '5 '
*)'%3!' %.% ')!' ,!
Q' 8 %')5,%' ((,5)>

% ' 1!' ,! (! ,! 0,4! ,,! (! ,!
J ,1 'E,%' '5 '*)'%3!'
%.% ' 1!' ,! J ')%)5 '
*)'8, '5 ' 1, %) '(%3!'
FFF,F!
A ' $'$ 'A, ,%)' %;
,%'C' $%'%33 % ' '4') ;
5'%' A'3 3 $', $' 0'
A '. C%' '0 'A ' ,C' ;
1%@' A%' A 'Y'%51, %');
5' , 4)' B, A'%' .%,)' ,;
$' F$ %,)',)' 5 ' '1%@'
$'%'0 '4C'5, 3%C,)'' A '
@)' 0A, '5, (. C'A B'1$(A'
A'A%5' 5',)') '%((5,)'' '
A, '3 3 , ,) ![' $ 3% >'
$'$ %' 1!' ,,!'33!'D 'D !
]' C' %) 5'0 ,)5 ' !'? A)

.>?#B>D @ ?, 1E<=>! <0D C.1?? 0=+@> $<. 1' <%+>?
>0+>.>D +@> @<.$1#. 1' 5<%1? <$1#+ 0110! 10 +@>
8+@ 1' <.C@ 6: ! $> 0=>K<C+%E ?>,>0 B10+@?
<0D>%>,>0 D<E?? 0C>@ ?D>A<.+#.>'.1B +@<+A1.+T
.><+J<?+@><= +<+ 10 <B10=+@>% ++%>C1BB#M/
0 +E 1' 5<%1? <? +@>E $>@>%D +@> J>%%MH01J0 ,>??>%
1'+@> <DB .<% .>>0+>. 0=+@> . @<.$1#. @> .D>M

,(@ ,)'A%3 ,) 5 $ 1 %3% %' ,)%' $'$ B ,; ',.,)' 1 3% ,($% 0 * 14K ., , $'%! A 3% %' BA,(A A%.))') ,(5 4C%)C B , , ! F 1 C ,) ,)'(1,)' %, 5 0 1'%3)A,'A',)' A C%( )0,5)(%)5%)C ; B,) 0BA%A % ! Y)' A'C% DH)' A A 5%C 0 %(A % ,. 5 ,) , 4)' *A, 3A * 14 %)' %; ,%)' BA (%1 0 1' A 5, ; (. C 1%5 $)5 A %$A ; , C 0 A . ,') 0*% , ' 0 A , %)5 0 *,3%)' %)5) , ,%< 0 1' BA,(A ($) , ' A 4 $'A B, A A,1' A 0, ' 3 (,1)' 0 A 3 3 % B ' %' 0 A '' 5 %)5 A A,)'' 4 0 $)5 A 4 %)5 A B%' ,) , 5 51, %' 0 A 1! A' @,)'4 ,)'' 0 AB, A,)0 1 5 0 A, (11%)5 5 A,1',) A, ' 3)(< %)5 %33 % 5 ' 4 ' %)) C 5%)5. F 5 % B 0 1' A 4 , 0 A% A %,5 5, (; . C B% 1%5 B, A,)' A ' %' %)5 4 $)5%, 0 A, ,'), C 0 :$,) %' BA,(A 1,'A ', . , ' 5, 3$ % %4 (%$ A %,5 %51, % A%.,)'' 4 (1 1 ; BA% A%$'A C 4C A, , $%,)' %)5 ,)' A % ,)' 0 A, %5; .) $ % B%C F(5,)'' A

4 $)5 0 $ A 1%5 A, %0; 0%, % ' 5 , . %)5 ,(A 1$(A ' % A%)', B% ! ; 3 (,% C5,5 A @,)''%((($,,1> 0 0) ' ,')(,)' A%.,)'' 5 > 5,) 5 A,) 3 BA)' * ; 14 0, (%1 % @A, % ; , %)(0 1 B%) 0 (5, %)5 ( )0,5)(,)', !)5) B, A; %)5,)'' A @,)'' B% ,13 ; $) 5 T A,1)' A 3 ,)(B, A A, 5 % A A 3 ; ($,)' 0 A $)5 %@,)' 0% % A . ,') 0*% , B ( )( ) 5 B $ 5 (% 0 1 B%) 0 0% $, %4 3)' %@ (A% ' 0, < %)5) B, A %)5; ,)'' A, 1,'A 4 5) B, A $ $ 3,(,)' 0 A @,)'K 4 ,)'' 3 ,. C , J 0 ,)% ,A$(A % A %51, % B% . 4 %,)' %)5 3$00 5 $3 4C A, $((A C($ 5 % , C 4 ,)'' , %4 $ A% A, B),)5, (,)' A $ 5 %33 % A (%$ 0 A, 5 % A< C A @,)' % % A B% %' 3 ,)(' % C 0 % ,)'' : 5+)) C 0 4%5 A, 4$.)' A B 5 A %51, % A) $ %)5 1$(A 0%. $ %)5 A B, A 5, 1, 5 A,1![$C 5 ,)%, *A),(% 5 , 1? % ! (%3! F. %3$5 * (T% 5 ,.) > 5, 5 8, ,% $'$ G% 1! ,,! , 4 % /H !

?A>0D 0=' B<= 0<+ 10?' @<D' %10=' ? 0C>' C10? =0>D' @ B'
+1' <' J<+>.E' =.<,>L' '1.!' 0' <DD + 10' +1' +@>' A.>+>.P
0<+#.<%' @1..1.?' J@ C@' @#0=' 1,>.' +@>' ,1E<=>!' +@>E'
@<D' >KA>. >0C>D' +@>' B1?+' ?+1.BE' <0D' D?<?+.1#?'
J 0+>.' J +@ 0' +@>' .>C1%%>C+ 10' 1'' +@>' 1%D>?+' B<.P
0>.? T' 1?+' 1'' +@>B' @<D' .>%<+ ,>?' 1.' '. >0D?' 10'
$1<.D' @>E' +@.10=>D' BB>D <+>%E' +1' +@>' ?@1.>!' +1'
<??#.>' +@>B?>%,>?' J +@' +@> .' 1J0' >E>?' 1'' +@>' +.#+@'
1''+@> .' .>+#.0' @>0' +@>E' $>@>%D' +@> .' '<C>?' 10C>'
B1.>!' <0D' ?<J' +@>B' <CC1BA<0 >D' $E' +@>' 0#B>.1#?'
>,D>0C>?' J@ C@' +@>E' $.1#=@+' $<CH' 1''+% >' ?#CC>??' 1''
+@>' >KA>D + 10!' +@>E' $#.?+' '1.+@' 0' <CC%<B<+ 10?' 1''
"1E' <0D' =.<+#%<+ 10' @>E' <J< +>D' +@>' %<0D 0=' 1''
1%#B$#?!' J@>0' +@>' J@1%>' A1A#%<+ 10' 1'' +@>' A%<C>'
<CC1BA<0 >D' @ B' <0D' @?' C.>J' +1' +@>' A.0C A<%'
C@#.C@!' J@>.>' ?1%>B0' +@<0H?= , 0=?' J>.>' 1''>.>D' #A'
'1.' +@> .' .>+#.0!' J@ %>' >,>.E' $>%%' 0' +@>' , %%<=>' ?>0+'
'1.+@' <"1E1#?' A><%' 0' @101#.' 1'' +@>' =%1. 1#?' >,>0+!'
U@>' <DB .<%' J<?' +11' D>? .1#?' 1'' A.>?>0+ 0=' @ B?>%''
$>'1.>' +@>' ?1,>.> =0?' +1' A.1+.<C+' @?' ?+<E' %10=' <+'
5<%1?' >' +11H' J +@' @ B' 10' @?' "1#.0>E' ?A>C B>0?'
1''+@>' B#%+ '<. 1#?' A.1D#C+?' 1''+@>' 0>J%EMD ?C1,>.>D'
.>= 10?' >' J<?' <CC1BA<0 >D' $E' ?>,>.<%' 1'' +@>

L')%)5' *)' 8, '5' 0' % ')' ,5%C!' A '($;
1,%) '(!F!'F,!'J'*A% ; ,$' (,)(,5)(' A $5' A%.'
.,F'8, '5' !' 1,)'$' 1!' $00,(5'A)' 1,'A' A,)@' '5, ;
,!33!' ID J H ! J ,1 'E,%' '5' 3' 3 (,% C' B, A' 1 ,(%)'
*)'%3!' %.% ' 1!',!J' 1%,) T' A' $3 , , $'5 %5'
* T5 8, !'5' $'%' 1!',.!' !, ' '3 .%)' 0'(11)(,)''
33!' 6 J 6I! %'. C%'' A' A%' 1,) $'5%C!
* 14' %, 5' 0 1' 3%,)'
)' ,5%C' 5, (. 5' %)5')' ' ,1 ' E,%' ' ' '
,5%C' %)5') 5' A' 3 !',,!' C

0<+ ,> ?%<0D>.? <..<E>D 0 +@> . ? +AA%> $<.$<. C
C1?+#B>! <0D D>C1.<+>D! <? @> A<??>D +@.1#=@ +@>
A. 0C A<% C + >?! J +@ C1%%<.?! $.<C>%>+?! <0D 1+@>.
1.0<B>0+? 1' =1%D .#D>%E '<?@ 10>DL @> >K@ $ +>D
<%?1 C10? D>.<$%> F#<0+ + >? 1' +@> ?<B> B >+<% 0
D#?+! 1. 0 C.#D> B<??>?!T 0#B>.1#? ,>=>+<$%> >KP
1+ C? A1??>??>D 1'<.1B<+ C 1. B>D C 0<% , .+#>! <0D
?>,>.<% H 0D? 1' F#<D.#A>D? #0H01J0 0 #.1A>!
<0D $ .D? J@1?> ,<. >+ >? 1' =<#DE A%#B<=> =<,> <
$. %% <0+ >''>C+ +1 +@> A<=><0+ @><DB .<%? A.1P
=.>?? +@.1#=@ +@> C1#0+.E J<? >,>.EJ@>.> @A>D>D
$E +@> B#%+ +#D>?'+@.10= 0= '1.+@ +1 =<G> <+ +@>
>K+.<1.D 0<.E ?A>C+<C%>! <0D +@> B1.> >K+.<1.D 0<.E
B<0! J@1! 0 +@> >BA@<+ C %<0=#<=> 1' +@<+ + B>!
J@ C@ @<? 01J %1?+ +? '1.C> '.1B +? '<B % <. +E!
' .?+ .>,><%>D +@> >K ?+>0C> 1' < >J 1.%D R ?
@>A<??>D +@.1#=@ +@> $#?E! A1A#%1#? C +E 1' >, %%>!
>,>.E J 0D1J! $<%C10E! <0D @1#?>+1A! J@ C@ C1#%D
<''1.D < =% BA?> 1' @ B! ? D>?C. $>D +1 @<,> $>>0
C.1JD>D J +@ ?A>C+<+1 L? + J<? +@> B DD%> 1'
A. % $>'1.> 1%#B$#? .><C@>D <.C>%10< @>
01$ % +E <0D C<,<% >.? 0 <++>0D<0C> 10 +@> C1#.+!
+1=>+@>. J +@ +@> <#+@1. + >? 1' +@> C +E! C<B> +1
+@> =<+>? +1 .>C> ,> @ B! <0D >?C1.+>D @ B +1 +@>
.1E<% A.>?>0C> >.D 0<0D <0D ?<$>%%< J>.>?><+>D!
J +@ +@> . ?10 5. 0C> /1@0! #0D>. < ?#A>.$ C<01AE

L $0, G 8, 5 L $.), $5 4 0% A,) 5 ,) %
$)5 ,4! ,.! (! F,.! J ; . 0 ( ) %,),) ' A A <
)%)5 *) 8, 5 1,> 8 A$ Z %C %%G% Z'( );
%) (! F . ,) A 0, >0 $, 0 A) B
1) A 3 (,1) B% 5 1,),) 3, $ $!Z >
% $13 0' 5 0 $00,(,) 1%';)% 2$,% 5 3%)% 33! 6 6 !

1''?+<+>!' <J< + 0=' @ ?' <.. ,<%' 0' @ ?&<AA.1<C@' +@>E'
.1?>' '.1B' +@> .' ?><+?!' <0D' >K+>0D 0=' +@> .' @<0D?' +1'
@ B' +1' ?<%#+>!' C<#?>D' @ B' +1' $>' ?><+>D' $>'1.>' +@>B '
@>?>' J>.>' #0A.>C>D>0+>D' B<.H?' 1''C10D>?C>0? 10'
+1' <' A>.?10' 1'' 1%#B$#?? .<0H!' 0' +@>' @<#=@+E' <0D'
C>.>B10 1#?' C1#.+' 1'' <?+ %>' +' J<?!' 0D>>D!' +@>'
A.1#D>?+' B1B>0+' 0' +@>' % '>' 1'' 1%#B$#?' >' @<D'
'#%%E' >?+<$% ?@>D' +@>' +.#+@' 1'' @ ?' %10=MC10+>?+>D'
+@>1.E!' 0' +@>' '<C>' 1'' <.=#B>0+!' ?1A@ ?+.E!' ?0>>.!'
?C>A+ C ?B!' <0D' C10+>B A+' >' @<D' <C@ >,>D' +@ ?!'
01+' $E' C@<0C>!' $#+' $E' C<%C#%<+ 10!' ?#AA1.+>D' +@.1#=@'
+@>' B1?+' <D,>.?>' C .C#B?+<0C>?' $E' C10?#B B<+>' C10P
D#C+' @>' @101#.?' A< D' @ B!' J@ C@' @<D' @ +@>.+1'
$>>0' .>?>.,>D' 10%E' '1.' .<0H!' 1.' '1.+#0>!' 1.' B % +<.E'
?#CC>??' A#.C@<?>D' $E' +@>' $%11D' <0D' +><.?' 1'' +@1#P
?<0D?!' J>.>!' 0' @ ?' C<?>!' <' @1B<=>' +1' 0+>%%>C+#<%'
A1J>.' ?#CC>??'#%%E' >K>.+>D' 0' $>@<%'' 1'' +@>' 01$%>?+'
0+>.>?+?' 1''@#B<0 +E T

'+>.' <' $. >'' 0+>.,<%!' +@>' ?1,>.> =0?' .>F#>?+>D'
'.1B' 1%#B$#?' <' .>C +<%' 1'' @ ?' <D,>0+#.>?' ?'
B<00>.' J<?' ?>D<+>' <0D' D =0 ' >D!' $#+' J<.B>D' $E'
+@>' =%1J' 1''0<+#.<%' >0+@#? <?B ' >' >0#B>.<+>D' +@>'
?>,>.<%' ?%<0D?' J@ C@' @>' @<D' , ? +>D!' >KA<+ <+>D' 10'
+@>' +>BA>.<0C>' 1'' +@>' C% B<+>!' +@>' C<A<C +E' 1'' +@>'
?1 %' '1.' >,>.E' ,<. >+E' 1'' <=. C#%+#.<%' A.1D#C+ 10!' <AM

Q' ' % C ' 3$' 3, !' 3!' D ! J : 1% %' 8, ' 5 ' % '
3!' (FFF,,,!' (FFF,.!' (F ! J >')5,% L' %3!' % (,%' 8, ,%5!'
)% 5 G!' 8, ' 5 ' ' C ' !' ,1, ,. ' (%3!' F.,,! J)G),'
(!' (F.,,,! J % ' 8, !' 5K >' .1' .,' 4,' 8, ,% ' ,4!'
3%') ' 1!' .,,,!' 33!' D ' D !' ,' (%3!' .,,,!' ,F! J) !' :% ' '
J 8, ' 5 ' 1, %) ' $4,' $>' %.!' * $14,' %3!' $ % ,'
31_' N$,,,'%') !' 5 ' ., % (,3 ' % !' 1!' FF,,,' 3!' ' $

A><% 0=' +1' +@>&?<BA%>?' BA1.+>D' $E' @ .0' 0' >, D>0C>' 1'' +@> .' 0<+#.<%' '.# +'#%0>??' >' DJ>%+' B1.>' <+' %<.=>' 10' +@>' A.>C 1#?' B>+<%?' +1' $>' '1#0D' 0' +@>?>' ?%<0D?!' J@ C@' @>' 0'>..>D' %>??' '.1B' +@>' ?A>C B>0?' <C+#<%%E' 1$+< 0>D' +@<0' '.1B' +@>' #0 '1.B' +>?+ B10E' 1'' +@>' 0<+ ,>?' +1' +@> .' <$#0D<0C>' 0' +@>' #0>KA%1.>D' .>= 10?' 1'' +@>' 0+>. 1.' <?+%E!' @>' A1 0+>D' 1#+' +@>' J D>' ?C1A>' <''1.D>D' +1' @. ?+ <0' G><%' 0' +@>' %%#B P 0<+ 10' 1'' <' .<C>' 1'' B>0' J@1?>' B 0D?!' '<.' '.1B' $> 0=' J>DD>D' +1' <0E' ?E?+>B' 1'' D1%<+.E!' J>.>' A.>A<.>D' $E' +@> .' >K+.>B>' ? BA% C +E' '1.' +@>' .>C>A+ 10' 1'' A#.>' <0D' #0C1..#A+>D' D1C+. 0>' @>' %<?+' C10? D>.<+ 10' +1#C@>D' ?<$>%%<?' @><.+' B1?+' ?>0? $%EL' <0D' +@> ,@1%>' <#D >0C>!' H 0D%>D' J +@' ,<. 1#?' >B1+ 10' $E' +@> ?A><H>.?' >%1F#>0C>!' '%%>D' #A' +@>' A>.?A>C+ ,>' J +@' L@>' =1.=>1#?' C1%1#. 0=' 1'' +@> .' 1J0' '<0C >?!' <?' <BM' <+ 10!' 1.' <,<. C>!' 1.' D>,1+ 10<%'>>% 0=' A.>D1B 0<+>D' 0' +@> .' $1?1B?' @>0' 1%#B$#?T'C><?>D!' +@>' H 0=' 0D'F#>>0!' +1=>+@>.' J +@' <%%' A.>?>0+!' A.1?+.<+>D' +@>BP ?>%,>?' 10' +@> .' H0>>?' 0' =.<+>'#%' +@<0H?= , 0=?!' J@ %>' @>' ?1%>B0' ?+.< 0?' 1'' +@>' >' >#.<' J>.>' A1#.>D' 1.+@ $E' +@>' C@1 .' 1'' +@>' .1E<%' C@<A>%!' <?' 0' C1BP B>B1.<+ 10' 1'' ?1B>' =%1. 1#?' , C+1.E T

@>' D ?C1,>. >?' 1'' 1%#B$#?' >KC +>D' <' ?>0?<+ 10!' <<.+ C#%<.%E' <B10=' B>0' 1'' ?C >0C>!' 0' +@>' B1?+' D ?.' <0+' A<.+?' 1'' #.1A>!' ?+.10=%E' C10+.<?+ 0=' J +@' +@>' A<+@E' J@ C@' @<D'UA.>C>D>D' +@>B' @>E' C10=.<+#M

L' 8 %')5,%' ((,5) %!' 4!' ,.!' (!F.!'F.,!'F.,,! J >' 1!' ,!' (!' ,!' ,4!' ,,!' (!' ,,,! J')%)5' *)' 8, ' 5' 1,>' $) G!' 8, !' $.' $)5' %)' $4,' $3 %!

+@>' ><?+>.0' ?@1.>?' 1 '' ? <!' <0D' %E 0=' <D"<C>0+' +1' +@>'
,<?+' <0D' 1A#%>0+' .>= 10?' D>A C+>D' 0' ?#C@' =1%D>0' C1P
%1#.?' $E' <0D>, %%>' <0D' +@>' 51% ' @ ?' C10">C+#.>!'
J@ C@' J<?' C10'1.B<$%>' +1' +@>' <DB .<% ?' A.>C10C> ,>D'
1A 0 10?' $>'1.>' #0D>.+<H 0=' +@>' ,1E<=>!' J<?' C1..1P
$1.<+>D' $E' +@>' <AA<.>0+' ? B %<. +E' $>+J>>0' ,<. 1#?'
0<+#.<% A.1D#C+ 10?' 1 '' +@>?>' ?%<0D?!' <0D' 1 '' +@>' <?+ '
.1B' +@ ?' B ?<AA.>@>0? 10!' +@>' 0>J' D1B 0 10?' ?110'
C<B>' +1' $>' D ?+ 0=# ?@>D' <?' +@>' >?+' 0D >?!' <0' <AP
A>%%<+ 10' $E' J@ C@' +@>E' <.>' ?+ %%' .>C1=0 ?>D' 0' +@>'
+ +%>?' 1 '' +@>' A<0 ?@' C.1J0 T

1%#B$#?!' D#. 0=' @ ?' .>? D>0C>' <+' <.C>%10<!' C10P
+ 0#>D' +1' .>C> ,>' '.1B' +@>' A<0 ?@' ?1,>.> =0?' +@>'
B1?+' @101#.<$%>' D ?+ 0C+ 10?' J@ C@' .1E<% $1#0+E'
C1#%D' C10'>.' @>0' >.D 0<0D' .1D>' <$.1<D!' @>'
J<?' <CC1BA<0 >D' $E' +@>' <DB .<% <+' @ ?' ? D>' & @>'
C1#.+ >.?!' 0' >B#%<+ 10' 1 '' +@> .' B<?+>.!' B<D>' '.>F#>0+'
>0+>.+< 0B>0+?!' <+' J@ C@' @>' J<?' +.><+>D' J +@' +@>'
A#0C+ $ 1#?' D>'>.>0C>' A< D' +1' <' 01$%>' 1 '' +@>' @ =@>?+'
D<?? '' #+' +@>' <++>0+ 10?' B1?+' =.<+>'#% +1' @ ?

L' 1%5 G' 8, !' !' (!' %) $!' (',)0,(4' ' '3),>'
(F.,,,! J)), ' :% ' %3!' $>' $ ' 2$%1., ' 3A % ' 1%'), $5 '
% , ' !' % !' (,3 ' 1!' %, ') , ' .,5 % $ ') 2$ '
FF,,,!' 3!' !' J' : 1% %' 8, '),1' 5 $)' 2$,' 3% . ' %($' %'
5' % ')5,% ' (%3!' F.,,,! 0,),4$' 8, 3%), ' 5, % ' , $ '
' % C' 1' ' A%. ')5,($1' 3$) ![' 3F,' 3, !'
(,. P5' A' 3 3$ %' ,)0)(' 3!' (FFF.!
3 (,) '' A' ,5) , C' 0' A '
) B' 5, (. , ' B, A' A' % '
]' 8 %')5,%' ((,5)>'
)5, ' B, A' 1 '5, $!' Y'); % ' (!' ,!' ,4!' ,,!' (!' ,,,! J T)>'
$ %' 3 ,' 3 $ ' A% ' '5' G),' .00' .,' 4, ' 8, '
2$,4$' 0,' %3$5' (1 ' %3A ' ,4!' ,!' (%3!' .,,,! J : 1% %' 8, >'
1), ' F %' (%)$1' ,)>' ,%' 5' % ')5,% ' (%3!' F.,,! J'
% 1' %5+%( ) ')5, ' % 4,> N$),'%')% ' 5' . %' 3!

%>= ?%<+ 10‘ 1’‘ A< 0‘ #0D>.‘ %<+>.‘ A. 0C>?‘ @>‘ 0>J‘ +>.. +1. >?’“ ’<.‘ ’.1B‘ $> 0=‘ A>. B ++>D‘ ’.>>‘ 0+>.C1#.?>‘ J +@‘ ’1.> =0‘ 0<+ 10?!‘ J>.>‘ 1A>0>D‘ 10%E‘ #0D>.‘ ?+. C+‘ % B +<+ 10?‘ +1‘ A<0 ?@‘ ?#$">C+?!‘ <0D‘ J>.>‘ .>?>.,>D‘ <?‘ ’1.B 0=!‘ 0‘ ?1B>‘ ?1.+!‘ A<.+‘ 1’‘+@>‘ >KC%#? ,>‘ .>,>P 0#>‘ 1’‘+@>‘ C.1J0‘ %%‘ A>.?10?‘ 1’‘ J@<+>,>.‘ D>?C. AP + 10‘ J>.>‘ 0+>.D C+>D!‘ #0D>.‘ +@>‘ ?>,>.>?+‘ A>0<%+ >?!‘ ’.1B‘ +.<D 0=‘ J +@!‘ 1.‘>,>0‘ , ? + 0=‘+@>‘ 0D >?!‘ J +@P 1#+‘% C>0C>‘ ’.1B‘ +@>‘ C10?+ +#+>D‘ <#+@1. + >?‘ +‘!J<?‘ BA1?? $%>‘ +1‘>,<D>‘ +@ ?!‘ <?‘ <‘ B 0#+>‘ ?A>C ’ C<+ 10‘ 1’‘ +@>‘ ?@ A?!‘ C<.=1>?!‘ C.>J?!‘ J +@‘ +@>‘ A.1A>.+E!‘<AA>.P +< 0 0=‘ +1‘><C@‘ 0D , D#<%!‘ J<?‘ .>F# .>D‘ +1‘ $>‘ +<H>0‘ <+‘ +@>‘ 1’’ C>‘ 0‘ <D G!‘ <0D‘ <‘ C1..>?A10D 0=‘ .>= ?+.<P + 10‘ 0‘ <‘ ? B %<.‘ 1’’ C>‘ >?+<$% ?@>D‘ <+‘ ?A<0 1%<‘ ‘ B1.>‘ ?<=<C 1#?‘ ?A . +‘ J<?‘ B<0 ’>?+>D‘ 0‘ +@>‘ <BA%>‘ A.1, ? 10‘ B<D>‘ 1’‘ J@<+>,>.‘ C1#%D‘ C10+. $#+>‘ +1‘ +@>‘ ?#AA1.+‘ 1.‘A>. B<0>0+‘A.1?A>. +E‘1’‘+@>‘ 0’<0+‘C1%10E‘ .< 0!‘ A%<0+?!‘ +@>‘ ?>>D‘ 1’‘ 0#B>.1#?‘ ,>=>+<$%>‘ A.1P D#C+?!‘J@ C@‘ 0‘+@>‘=>0 <%‘C% B<+>‘1’‘+@>‘ 0D >?‘B =@+‘ $>‘ B<D>‘,<%#<$%>‘ <.+ C%>?‘ ’1.‘ D1B>?+ C‘ C10?#BA+ 10‘ 1.‘>KA1.+!‘ J>.>‘ % $>.<%%E‘ ’#.0 ?@>D‘ 1BB1D + >?‘1’‘ >,>.E‘ D>?C. A+ 10‘ ’1.‘ +@>‘ ?#AA%E‘ 1’‘ +@>‘ ’%>>+!‘ J>.>‘ >K>BA+>D‘ ’.1B‘ D#+E‘ @>‘ 1J0>.?‘ 1’‘ <%%‘ ,>??>%?‘ +@.1#=@1#+‘ +@>‘A1.+?‘1’‘ 0D<%#? <‘ J>.>‘ .>F# .>D‘ $E‘ <0‘ 1.D 0<0C>‘ ?1B>J@<+‘ <.$ +.<.E!‘ +1‘ @1%D‘ +@>B‘ 0‘ .><D 0>??‘ ’1.‘+@>‘>KA>D + 10‘ + %%‘ ’#.+@>.‘ <#+@1. +E‘ J<?= ,>0‘+1‘ BA.>??‘ $1+@‘1’’ C>.?‘<0D‘B>0!‘ ’‘0>C>?P ?<.E!‘ 0+1‘ +@>‘ ?>., C>‘ .+ ?<0?‘ 1’‘>,>.E‘?1.+!‘ A.1P , D>D‘ J +@‘ +@>‘ BA%>B>0+?‘ 1’‘ +@> .‘ ,<. 1#?‘ C.<’+?!‘ 0C%#D 0=‘<‘=.><+‘)$14 ‘ 0‘1,) ‘0 ‘ F3 ,)’‘+@>

?#$+>..<0>1#?' +.><?#.>?' 1'' +@>' 0>J' .>= 10?!' J>.>'
>0.1%%>D' 0' +@>' >KA>D + 10L' #' 1.D>.' +1' D>'.<E' +@>'
@><,E' C@<.=>?' 1'' J@ C@!'+@>' =1,>.0B>0+!' 0'<DD + 10'
+1'+@>' .>=#%<.' .>?1#.C>?!' @<D' .>C1#.?>' +1'<' %1<0!'<0D'
+1'+@>' ?>F#>?+.<+>D' A.1A>.+E' 1''+@>' >K %>D'/>J? T

B D'+@> .' 1J0' +>BA1.<%' C10C>.0?!' +@>' A<0 ?@'
?1,>.> =0?' D D' 01+' '1.=>+' +@>' ?A . +#<%' 0+>.>?+?' 1''
+@&> .' 0>J' ?#$">C+?' @>' 0D <0?' J@1' <CC1BA<0 >D'
1%#B$#?' +1' <.C>%10<' @<D' $>>0' <%%' 1''+@>B' $<AP
+ G>D'L' $> 0=' 1''>.>D' #A!' 0' +@>' %<0=#<=>' 1''<' <?P
+ % <0' J. +>.!' <?' +@>' ' .?+M'.# +?' 1'' +@>' >0+ %>?'
S 0=' >.D 0<0D' <0D' @ ?' ?10' 5. 0C>' /1@0' ?+11D' <?'
?A10?1.?' +1' +J1' 1'' +@>B!' J@1' J>.>' A>.B ++>D' +1'
+<H>' +@> .' 0<B>?' 0>' 1'' +@>' 0D <0?' .>B< 0>D'
<++<C@>D' +1' +@>' A. 0C> ?' >?+<$% ?@B>0+L' +@>' .>? D#>'
J>.>'?>0+' +1' >, %%>!' J@>0C>!' <'+>.'?# +<$%>' .>% = 1#?'
0?+.#C+ 10!' +@>E' J>.>' +1' $>' .>+#.0>D' <?' B ?? 10<. >?'
'1.' +@>' A.1A<=<+ 10' 1'' +@>' '< +@' <B10=' +@> .' 1J0'
C1#0+.EB>0' J>%,>' A<0 ?@' >CC%>? <?+ C?' J>.>' <%?1'
D>?+ 0>D' +1' +@ ?' ?>., C>L' <B10=' J@1B' J<?' +@>' C>%>P
$.<+>D' <?' <?<?!' ?1' C10?A C#1#?' <'+>.J<.D?' '1.' @ ?'
$>0>,1%>0+' >K>.+ 10?' 0' $>@<%'' 1'' +@>' #0'1.+#0<+>'
0<+ ,>?' @>' B1?+' >KA% C +' D .>C+ 10?' J>.>' = ,>0' +1'
+@>' <DB .<%' +1' #?>' >,>.E' >''1.+' '1.' +@>' %%#B 0<+ 10'
1'' +@>' A11.' @><+@>0!' J@ C@' J<?' ?>+' '1.+@' <?' +@>' A. P
B<.E' 1$">C+' 1''+@>' >KA>D + 10' >' J<?' A<.+ C#%<.%E'
>0"1 0>D' +1' Q' <$?+< 0' '.1B' <%%' B><0?' 1''<001E<0C>!'
<0D' +1' +.><+' +@>B' J>%%' <0D' %1, 0=%E!' B< 0+< 0 0=' <

L' %.%) ' * !' ,3!' !') G!' 8, ' 5 ' $. ' $)5 '
I ' 6 D6! J'8 %)5,% (>' ,4',.!' (! FF,!'
(,5) % ! (!'F! ,4!',,!(!',.! J $>
E !' !'

'<B % <.' 0+>.C1#.?>' J +@' +@>B!' .>0D>. 0=' +@>B' <%%' +@>' H 0D' 1'' C>?' 0' @ ?' A1J>.!' D ?+. $#+ 0=' A.>?>0+?' 1'' +@>' B>.C@<0D ?>' <0D' ,<. 1#?' C1B B1D + >?' J@ C@ +@> .' @ =@0>??>?' @<D' C<#?>D' +1' $>' >B$<.H>D' 10' $1<.D' +@>' '%>>+' '1.' +@<+' A#.A1?>!' <0D' ' 0<%%E!' +1' C@<?P + ?>' 0' +@>' B1?+' >K>BA%<.E' B<00>.' <%%' J@1' ?@1#%D' 1''>.' +@>' 0<+ ,>?' +@>' ?% =@+>?+' B1%>?+<+ 10 R' #C@' J>.>' +@>' 0?+.#C+ 10?' >BA@<+ C<%%E' #.=>D' 10' 1%#BP $#?' '1.' +@>' .>=#%<+ 10' 1'' @ ?' 0+>.C1#.?>' J +@' +@>' ?<,<=>?L' <0D' +@> .' 0D#%=>0+' +>01#.' ?#'' C>0+%E' <+P +>?+?' +@>' $>0>,1%>0+' <0D' .<+ 10<%, >J?' 1'' ?<$>%%<' 0' .>% = 1#?' B<++>.?!' J@>0' 01+' J<.A>D' $E' <0E' '1.> =0' 0'%#>0C> T

1J<.D?' +@>' %<?+' 1'' <E!' 1%#B$#?' F# ++>D' <.P C>%10<' '1.' +@>' A#.A1?>' 1'' ?#A>. 0+>0D 0=' <0D' >KA>P D + 0=' +@>' A.>A<.<+ 10?' '1.' D>A<.+#.>' 10' @ ?' ?>C10D' ,1E<=>' >' J<?' <CC1BA<0 >D' +1' +@>' =<+>?' 1'' +@>' C +E' $E' <%%' +@>' 01$ % +E' <0D' C<,<% >.?' 1'' +@>' C1#.+' .D>.?' J>.>' ??#>D' +1' +@>' D ''>.>0+' +1J0?' +1' A.1, D>' @ B' <0D' @ ?' ?# +>' J +@' %1D= 0=?' '.>>' 1'' >KA>0?>

Q' 'A' ,',)%',) $(,)' %3!' %.% '* !' ,3!' !' D6! J $,, G' 8, '5' % .' $)5' ,4!' ,.!' (!FF,,!' J' N$),'%')%' 5' ., %' 3!' D !

%,)%' ,($' %' C'(%,1' A'( ). ,)' 0' A')%',. '%' A'3,1' 4+ ('0' A' F3 5,; ,)' B,A' A' . ,') '0%' $; B ,'A,)'' %' 13 %'( ),5 ; %,)!' A' 3% %'',' B A' 2$,)''',0')C' A B' BA%' ' ', $'4$)5' %'( ) 13 ; %C' 1%C' 1%@' ,)' A' %,)

(' /,/)40 8'00)&' '0 4 9/!/' %)./! 50 (9)' /:/0' M' 5/ '45(* 0(,/!/&)05',)&0%=< %&'4/.'45/' ')'!/0').' /04'< =05/.' 5!04 ')' 9(!05845/!/' 0/)43' * ' 945" /1(' 0580*' /.*'!',/0')., ' ' ' (' ' 4((45/! 6%*5 '!&/! 0').0' '=(%).)&) 6)/0 (' &(.,')(4 0(6%*5 5(9/,/!' (! 45/ 0'?/ (' 45/7 &(.' '0 (! 45/ 0', '4 ()' (' 45/ 8((! 5/'45/')')'4 ,/0A' (0'0 /6'./ 08')'' (' 1"1

?' '1.B>.' C1BB ?? 10' J<?' 01+' 10%E' C10' .B>D' 0' +?' '#%%' >K+>0+!' $#+' C10? D>.<$%E' >0%<.=>D ' 1.' +@>' ?<H>' 1'' D>?A<+C@!' @>' J<?' <#+@1. G>D' +1' 01B 0<+>' +1' <%%' 1'' C>?' J +@1#+' <AA% C<+ 10' +1' =1,>.0B>0+!' <0D' 1.P D 0<0C>?' <0D' %>++>.?MA<+>0+!' $><. 0=' +@>' .1E<%' ?><%!' J>.>' +1' $>' ??#>D' $E' @ B!' ?#$?C. $>D' $E' @ B?>%'' 1.' @ ?' D>A#+E ' >' J<?' 0+.#?+>D!' 0' ' 0>!' J +@' ?#C@' #0P % B +>D' "#. ?D C+ 10' <?' ?@1J>D' +@<+!' @1J>,>.' +<.DE' +@>' ?1,>.> =0?' B<E' @<,>' $>>0' 0' =.<0+ 0=' @ B' +@> .' C10' D>0C>!' +@>E' J>.>' 01+' D ?A1?>D' +1' ?+ 0+' +@>' B><P ?#.>' 1'' +' J@>0' @ ?' D>?>.+?' J>.>' 10C>' >?+<$% ?@>D T

110' <'+>.' 1%#B$#?' ?' .>+#.0' +1' A< 0!' >.D 0<0D' <0D' ?<$>%%<' <AA% >D' +1' +@>' C1#.+' 1'' 1B>' +1' C10P ' .B' +@>B' 0' +@>' A1??>?? 10' 1'' +@> .' .>C>0+' D ?C1P ,>. >?!' <0D' 0,>?+' +@>B' J +@' ? B %<.' >K+>0+' 1''"#. ?P D C+ 10' J +@' +@<+' '1.B>.%E' C10'>..>D' 10' +@>' S 0=?' 1'' 51.+#=<%' +' J<?' <0' 1A 0 10!' <?' <0C >0+' A>.@<A?' <?' +@>' C.#?<D>?!' +@<+' +@>' A1A>!' <?' , C<.' 1'' @. ?+!' @<D' C1BA>+>0+' <#+@1. +E' +1' D ?A1?>' 1'' <%%' C1#0+. >?' 0P @<$ +>D' $E' @><+@>0' 0<+ 10?!' 0' '<,1#.' 1'' @. ?+ <0' A1+>0+<+>?' %+@1#=@' >.D 0<0D' <0D' ?<$>%%<' D1' 01+' ?>>B' +1' @<,>' $>>0' '#%%E' ?<+ ?' >D' 1'' +@ ?' . =@+!' E>+' +@>E' J>.>' J %% 0=' +1' <CF# >?C>' 0' +?' <??#BA+ 10' 0' +@>' A.>?>0+' 0?+<0C>!' '.1B' +@>' C10, C+ 10' +@<+' +@>' A<A<%' ?<0C+ 10' J1#%D' B1?+' >''>C+#<%%E' >KC%#D>' +@>' A.>+>0? 10?' 1''<%%' 1+@>.?!' <0D' >?A>C <%%E' +@> .' 51.+#P =#>?>' . ,<%?' 0' +@> .' <AA% C<+ 10' +1' +@>' @1%E' ?>>' +@>E' J>.>' C<.>'#%' +1' .>A.>?>0+' +@> .' 1J0' D ?C1,>. >?

0' ' (3,' 0' A' ,',)%' 5 ($1)' %3!' %.% ' 1!,,! * ! ,3! ! H' D ' D '!

'

<?‘ O‘ 01‘ J<E‘ 0+>.'>. 0=‘ J +@‘ +@>‘ . =@+?‘ '1.B>.%E‘ C1OC>D>D‘ $E‘ +‘ +1‘ +@> .‘ 0> =@$1#.?‘ @>E‘ >0%<.=>D‘ 10‘ +@> .‘ ?>., C>?‘ O‘ +@>‘ A.1A<=<+ 10‘ 1'‘ +@>‘ '< +@!‘ J@ C@‘ +@>E‘ <'' .B>D‘ +1‘ $>‘ <‘ A. OC A<% B1+ ,>‘ 1'‘ +@> .‘ A.>?>0+‘ 1A>.<+ 10?‘ @>E‘ 0+ B<+>D‘ ' 0<%%E!‘ +@<+‘ <%+@1#=@‘ B<0E‘ C1BA>+>0+‘ A>.?10?‘ D>>B>D‘ +@> .‘ <AA% C<+ 10‘ +1‘ +@>‘ C1#.+‘ 1'‘ 1B>'1.‘ <‘ + +%>‘ +1‘ +>..P +1. >?‘ <%.><DE‘ O‘ +@> .‘ A1??>?? 10‘ +1‘ $>‘ #00>C>??<.E!‘ E>+!‘ <?‘ A 1#?‘ A. OC>?‘ <OD‘ D#+ '#% C@ %D.>O‘ 1'‘ +@>‘ C@#.C@!‘ +@>E‘ J>.>‘ #0J %% 0=‘ +1‘ A.1C>>D‘ '#.+@>.‘ J +@P 1#+‘ +@>‘ ?<OC+ 10‘ 1'‘@ B‘ +1‘ J@1?>‘ H>>A 0=‘ +?‘ @ =@>?+‘ 0+>.>?+?‘ J>.>‘ 0+.#?+>D T

@>‘ A10+ ' C<% +@.10>‘ J<?‘ <+‘ +@<+‘ + B>‘ ' %%>D‘ $E‘ %>K<OD>.‘ L‘ <‘ B<0‘ J@1!‘ <%+@1#=@‘ D>=.<D>D‘ $E‘ #0.>?+.< 0>D‘ 0D#%=>0C>‘ 1'‘ +@>‘ B1?+‘ ?1.D D‘ <AA>+ +>?!‘ J<?‘ >0D1J>D‘ $E‘ 0<+#.>‘ J +@‘ ? 0=#%<.‘ <C#+>0>??!‘ <?‘ J>%%‘ <?‘ >0>.=E‘ 1'‘ C@<.<C+>.‘ >‘ %>0+‘ <‘ J %% 0=‘ ><.‘ +1‘ +@>‘ <AA% C<+ 10‘ 1'‘ +@>‘ A<0 ?@‘ =1,>.0B>0+!‘ <0D‘ B<D>‘ 01‘ @>? +<+ 10‘ O‘ =.<0+ 0=‘ J@<+‘ C1?+‘ @ B‘ 01P +@ 0=!‘ J@ %>‘ +‘ .>C1=0 ?>D‘ +@>‘ <??#BA+ 10‘ 1'‘ A1J>.?‘ J@ C@‘ @<D‘ <%.><DE‘ $>=#0‘ +1‘ +1++>.‘ O‘ +@>‘ 1A 0 10‘ 1'‘ B<0H 0D

O‘ +@>‘ D‘ 1'‘ <E‘ 6: !‘ @>‘ A#$% ?@>D‘ <‘ $#%%!‘ O‘ J@ C@!‘ +<H 0=‘ 0+1‘ C1O? D>.<+ 10‘ +@>‘ >B 0>0+‘ ?>.P , C>?‘ 1'‘ +@>‘ A<0 ?@‘ B10<.C@?‘ O‘ +@>‘ C<#?>‘ 1'‘ +@>‘ C@#.C@!‘ >?A>C <%%E‘ O‘ +@>‘ ?#$,>.? 10‘ 1'&+@>‘ <@1W B>+<0‘ >BA .>‘ O‘ A< 0!‘ <0D‘ J %% 0=‘ +1‘ <''1.D‘ ?+ %%‘ J D>.‘ ?C1A>‘ '1.‘ +@>‘ A.1?>C#+ 10‘ 1'‘ +@> .‘ A 1#?‘ %<M

/!!/!'‘).'0 **./)4'7)(C‘ 04‘ ./‘ %/,(%).(‘ /0‘ /*‘ ‘ =‘ ‘ *‘ , - %< =‘ ,‘0/*+,

@1#.?!' @>' Q' 1#+' 1 '' @ ?' A#.>' % $>.<% +E!' O'<%% $%>' HO1JP %>D=>!' <OD' A%>0 +#D>' 1 '' <A1?+1% C' A1J>.!R' C10' .B>D' +@>B' O' +@>' A1??>?? 10' 1 '' <%%' %<OD?' D ?C1,>.>D!' 1.' @>.><'+>.' +1' $>' D ?C1,>.>D!' $E' +@>B' O' +@>' >?+>.0' C><0!' C1BA.>@>OD 0=' +@>' ?<B>' >K+>0? ,>' . =@+?' 1 '' "#. ?D C+ 10' J +@' +@1?>' '1.B>.%E' C10C>D>D' +1' +@>' S 0=?' 1 '' 51.+#=<%

@ ?' $#%%' @>' ?#AA1.+>D' $E' <01+@>.!' D<+>D' 10' +@>' '1%%1J 0=' D<E!' O' J@ C@' +@>' A1A>!' O' 1.D>.' +1' 1$, <+>' <OE' B ?#OD>.?+<OD 0=' J +@' +@>' 51.+#=#>?>!' <OD' <C+P 0=' 01' D1#$+' 10' +@>' ?#==>?+ 10' 1 '' +@>' A<0 ?@' ?1,>P .> =0?!' D>' 0>D' J +@' =.><+>.' A.>C ? 10' +@>' 0+>0+ 10' 1 '' @ ?' 1. = 0<%' =.<0+' +1' +@>' %<++>.!' $E' $>?+1J 0=' 10' +@>B' <%%' ?#C@' %<OD?' <?' +@>E' ?@1#%D' D ?C1,>.' +1' +@>' J>?+' <OD' ?1#+@' 1 '' <0' B<= 0<.E' % 0>!' +1' $>' D.<J0' '.1B' A1%>' +1' A1%>!' <+' +@>' D ?+<OC>' 1 '' 10>' @#0D.>D' %><=#>?' +1' +@>' J>?+' 1 ''+@>' G1.>?' <OD' <A>' D>' >.D' ?%<OD? T' +' ?>>B?' +1' @<,>' >?C<A>D' @ ?' @1% 0>??!' +@<+' +@>' A<0 <.D?!' $E' A#.?# 0=' <' J>?+>.0' .1#+>!' B =@+' 0' + B>' .><C@' +@>' ><?+>.0' % B +?' 1 '' C1#0+. >?' A.>, 1#?%E' =.<0+>D' +1' +@>' 51.+#=#>?>!' <+' %><?+' +@ ?' J1#%D' <AA><.' '.1B' +@>' BA1.+' 1 '' <' +@ .D' $#%%!' ??#>D' >A+>B$>.' 78+@' 1 '' +@>' ?<B>' E><.!' J@ C@' 0,>?+>D' +@>' ?1,>.> =0?' J +@' A%>0<.E' <#+@1. +E' 1,>.' <%%' C1#0+. >?' D ?C1,>.>D' $E' +@>B!' J@>+@>.' 0' +@>' <?+!' 1.' J +@ 0' +@>' $1#0D<. >?' 1 '' 0D <!' <%%' A.>, 1#?

Q' '3 ,)' $A' 0' A '1)>' . $' ((,5) 1' '1 ,5, 1' 5,%)' ,' 1 A,)'') B',)' ' >' 0%4,(%)5 ' '( ) ,$)5 '$)%1'), C< C ' ' %C ' A '4$ ' 0' ,) %1'5 ' (,(' (,,(' 3> A,'A ,) 4 Y' 1) ',) $ % ' ') ,) ' %5' $1')4'!*47 % ' 0, 1% ',) .) % ' ',) . >' ($1' (,,('1 ,5, 1!'['),)5% ' 5 (% ' '5 ')5% !

C10C>?? 10?+1+@>C10+.<.E01+J+@?+<0D 0=+@>+ +%>D>. ,>D'.1B'<C+#<%A1??>?? 10!+@#?'1.+ '>D$E+@>@ =@>?+>CC%>?<?+ C<%?<0C+ 10!+@>A<0 <.D?B =@+@<,>A.1B ?>D+@>B?>%,>?<0#0 0+>..#A+>DC<.>>.1"D ?C1,>.E!$#+'1.+@>"><%1#?E1"+@>.. ,<%?+@>51.+#=#>?> T

@>C1#.+1" ?$10, >J>D J+@?>C.>+D ?F#P >+#D>+@> 0C.><? 0=B<. + B>>0+>.A. ?>1"+?0> =@P $1#.?@ %>+@>51.+#=#>?>J>.>+ B D%E C.>>A 0=<%10=+@>$<..>0?@1.>?1" '. C<!+@>A<0 <.D?@<D$1%D%E%<#0C@>D0+1+@>D>>A!<0D.>?C#>D#0H01J0.><%B?'.1B+?>B$.<C>?!J@C@+>>B>D 0+@>.'<0C >?J+@+.><?#.>?1" 0>?+B<$%>J><%+@ @>.B1.+ 'C<+10J<?=.><+%E>0@<0C>D $E+@>.>'%>C+10!+@<+<%%+@ ?B =@+@<,>$>>0<C@>,>D'1.+@>B P ?>%,>?!@<D+@>E$#+H01J0@1J+1A.1'+$E+@>A.1A1?<%?1" 1%#B$#?".1B+@>'.?+B1B>0+0 J@C@+@>?#CC>??1"+@><DB.<%?>0+>.A. ?>J<?>?+<$% ?@>D!/1@0!<A1%+C<0D<B$+1#?A. 0C>!@<D?1#=@+?1B>A.>+>0C>+$C@'>CH+@>C<.>>.1"D ?PC1,>.E!1.<+%><?+?@<.>0+@>?A1%?1"+'/

0@?0+>., >J J+@1%#B$#?<+?$10!@>?#=P =>?+>D+@<+@>D ?C1,>.>?1"+@>A<0 <.D?B =@+0+>.'>.>J+@+@>. =@+?>C#.>D+1+@>51.+#=#>?>

L A ,',)%3%'%) .5 4C 8 %.)0 3%,)< %) (,4 5 4C %.% 1! 4,)'* # ,)%)5,)(13)0 A 5,('%* !,3! !/I! 3)> U,,)%)5,)(13)0 A %)5 %5 4%(% ( ),5 A F3$,)0 A'? B -[! Y A% A 5,(. C 0%) B ! B 50,00 5 A"),)' +< * 8, 5 $'% 0 $'% %)5)' %)5 B% 1,.!33! J 6I!

$E' .>A><+>D' A<A<%' ?<0C+ 10' ? 0C>' +@>' $>= 00 0=' 1'' +@>' A.>?>0+' C>0+#.E!' <0D' =#<.<0+>>D' $E' +@>' +.><+E' J +@' A< 0' 0' 69:' 1%#B$#?!' J +@1#+'>0+>. 0=' 0+1' +@>' D ?C#?? 10!' C10+>0+>D' @ B?>%'' J +@' D>C%<. 0=!' +@<+' @>' @<D' $>>0' 0?+.#C+>D' $E' @ ?' 1J0' =1,>.0B>0+' +1' ?+>>.' C%><.' 1'' <%%' 51.+#=#>?>' ?>++%>B>0+?' 10' +@>' '. C<0' C1<?+!' <0D' +@<+' @ ?' C1#.?>' 0D>>D' @<D' %>D' @ B' 0' <0' >0+ .>%E' D ''>.>0+' D .>C+ 10' %+@1#=@' /1@0' A.1'>??>D' @ B?>%''?<+ ?' >D' J +@'+@>' >KA%<0<+ 10!' @>' ?110' <'+>.' D>?A<+C@>D' <0' <B$<??<D1.' +1' <.C>P %10<!' J@1!' <'+>.' DJ>%% 0=' 10' ?1B>' ..>%>,<0+' +1A C?!' +1#C@>D!' <?' +' J>.>!' 0C D>0+<%%E!' 10' +@>' .><%' 1$">C+' 1'' @ ?' B ?? 10!' +@>' %<+>' ,1E<=>' 1'' D ?C1,>.E' >' C10=.<+#%<+>D' +@>' A<0 ?@ ?1,>.> =0?' 10' +?' ?#CC>??L' >KA<+ <+>D' 10' +@>' C , % + >?' ?@1J0' $E' +@>' C1#.+' 1'' ?$10' +1' 1%#B$#?' 10' @ ?' %<+>' <.. ,<%' +@>.>L' <0D' <CH01J%>D=>D' +@>'N?<+ ?'<C+ 10' '>%+' $E' @ ?' B<?+>.' <+' +@>' 1.D>.?' = ,>0' +1'+@>' <DB .<%' +1' @1%D' <' J>?+>.%E' C1#.?>' '.1B' +@>' <0<. >?!' >KA.>?? 0=' <' @1A>' +@<+' +@>' ?<B>' C1#.?>' J1#%D' $>' A#.?#>D' 0' '#+#.>!' J +@1#+' 0P +>.'>. 0=' J +@' +@>' . =@+?' 1'' 51.+#=<%' $E' D>, <+ 10' +1' +@>' ?1#+@' @ ?' J<?' +@>' ' .?+' 1CC<? 10' 10' J@ C@' +@>' >K ?+>0C>' 1'' ?#C@' C%< B?' @<D' $>>0' 0+ B<+>D' $E' +@>' 51.+#=#>?>

0' +@>' B><0' J@ %>' >.D .U<0D' <0D' ?<$>%%<' .>P C> ,>D' 0+>%% =>0C>' +@<+' S 0=' /1@0' J<?' >F# AA 0=' <' C10? D>.<$%>' <.B<B>0+!' 0' 1.D>.' +1' <0+ C A<+>!' 1.' D>'><+!' +@> .' D ?C1,>. >?' 0' +@>' >?+' @>E' 0P ?+<0+%E' ?>0+' 10>' 1'' +@> .' @1#?>@1%D!' 10' 1A>' D>' >..> &<!' <?' <B$<??<D1.' +1' ?$10!' J +@' 0?+.#C+ 10?

+1‘ B<H>‘ +@> .‘ <CH01J%>D=>B>0+?‘ +1‘ +@>‘ H 0=‘ ‘1.‘ @ ?‘ @1?A +<$%>‘ .>C>A+ 10‘ 1’‘ 1%#B$#?!‘ <CC1BA<0 >D‘ J +@‘ <‘ .>F#>?+‘ +@<+‘ @>‘ J1#%D‘ A.1@ $ +‘ @ ?‘ ?#$">C+?‘ ‘.1B‘ 0+>.‘>.>0C>‘ J +@‘ +@>‘ D ?C1,>. >?‘ 1’‘+@>‘ A<0 <.D?‘ 0‘ +@>‘ >?+!‘ 0‘ +@>‘ ?<B>‘ B<00>.‘ <?‘ +@>?>‘ %<++>.‘ @<D‘ $>>0‘ >KC%#D>D‘ ‘.1B‘ +@>‘ 51.+#=#>?>‘ A1??>?? 10?‘ 0‘ ‘. C<‘ @>‘ <B$<??<D1.‘ J<?‘ ‘#.0 ?@>D‘ J +@‘ 1.D>.?‘ 1’‘ <‘ D ‘’>.>0+‘ BA1.+!‘ A.1, D>D‘ @>‘ ?@1#%D‘ ‘ 0D‘ +@>‘ .>A1.+?‘ C1..>C+‘ .>?A>C+ 0=‘ +@>‘ >F# AB>0+‘ <0D‘ A.1P $<$%>‘ D>?+ 0<+ 10‘ 1’‘ <‘ 51.+#=#>?>‘ <.B<D<‘ 0?+><D‘ 1’‘ <‘ C10C % <+1.E‘ D>A1.+B>0+!‘ @>‘ J<?!‘ 0‘ +@<+‘ C<?>!‘ +1‘ <??#B>‘ <‘ +10>‘ 1’‘ .>B10?+.<0C>!‘ <0D‘ +1‘ D>B<0D‘ <‘ ‘#%%‘ > 8!A%<0<+ 10‘ ‘.1B‘ S 0=‘ /1@0‘ 1’‘ @ ?‘ D>? =0?‘ @>‘ C<#+ 1#?‘ A. 0C>!‘ J@1‘ @<D‘ .>C> ,>D!‘ +@.1#=@‘ @ ?‘ ?>C.>+‘ <=>0+?‘ 0‘ <?+ %>!‘ 0+>%% =>0C>‘ 1’‘+@>?>‘ %<++>.‘ 0?+.#CP + 10?!‘ B<0<=>D‘ B<++>.?‘ ?1‘ D ?C.>>+%E‘ <?‘ +1‘ = ,>‘ 01‘ 1CC<? 10‘ ‘1.‘ +@> .‘ >K>.F ?>‘ >‘ <$<0D10>D!‘ 1.‘ <+‘ %><?+‘ A1?+A10>D!‘ @ ?‘ B>D +<+>D‘ >KA>D + 10!‘ 0‘ +@>‘ @1A>‘ 1’‘ <D"#?+ 0=‘ +@>‘ D ?A#+>‘ $E‘ 0>=1+ <+ 10!‘ 0‘ J@ C@‘ @>‘ >KC>%%>D‘ 0‘ 1.D>.‘ +1‘ F# >+‘ +@>‘ <AA.>@>0? 10?‘ 1’‘+@>‘ A<0 ?@‘ C1#.+!‘ @>‘ >0=<=>D‘ +1‘ ‘ +‘ 1#+‘ 01‘ ‘%>>+‘ ‘.1B‘ @ ?‘ D1B 0 10?‘ J +@ 0‘ ? K+E‘ D<E?L‘ <+‘ +@>‘ ?<B>‘ + B>‘ @>‘ ?>0+‘ <‘ ‘.>?@‘ B ?? 10‘ +1‘ <.C>%10<!‘ J +@‘ D .>C+ 10?‘ +1‘ A.1A1?>‘ <0‘ <B C<$%>‘ <D"#?+B>0+‘ A’‘ +@>‘ C10’% C+ 0=‘ C%< B?‘ 1’‘ +@>‘ +J1‘ 0<+ 10?!‘ $E‘ B<H 0=‘ +@>‘ A<.<%%>%‘ 1’‘ +@>‘ <0<. >?‘ <‘ % 0>‘ 1’‘ A<.+ + 10‘ $>+J>>0‘ +@>B L‘ +@>‘ . =@+‘ 1’‘D ?C1,>.E‘ +1‘ +@>‘ 1.+@‘ $> 0=‘ .>?>.,>D‘ +1‘ +@>‘ A<0 <.D?!‘ <0D‘ +@<+‘ +1‘ +@>‘ ?1#+@‘ +1‘ +@>‘ 51.+#=#>?> T

% ,%‘C‘ $ %‘ $ 3%‘ >‘ %‘)5!‘ ((,5) % ‘ (!‘ (, ! J Q $’$ %‘)!‘ ,,!‘ 3!‘ L J 8 >‘ $) G‘ $. ‘ $)5 ‘ ,4!‘ ,.!

@ %>' +@ ?' =<B>' 1'' D A%1B<CE' J<?' =1 0=' 10!' +@>'
<?+ % <0' C1#.+' <,< %>D' +?>%'' 1''+@>' 0+>.,<%' <''1.D>D'
$E' +?' . ,<%!' 0' >KA>D + 0=' A.>A<.<+ 10?' '1.' +@>' ?>C10D'
,1E<=>' 1'' D ?C1,>.E' L' J@ C@!' +@.1#=@' +@>' A>.?10<%'
<C+ , +E' 1''+@>' <DB .<%!' <0D' +@>' '<C % + >?' >,>.EJ@>.>'
<''1.D>D' @ B!' J>.>' '#%%E' C1BA%>+>D' $>'1.>' +@>' C%1?>'
1'' >A+>B$>.' 0?+><D' 1''+@>' .>%#C+<0C>!' <0D' 0D>>D'
<,1J>D' D ?=#?+!' J@ C@' @<D' $>>0' B<0 '>?+>D' $E' <%%'
C%<??>?' +1' @ ?' '1.B>.' ,1E<=>!' +@>' 10%E' >B$<..<??B>0+'
01J'<.1?>' '.1B' +@>' D '' C#%+E' 1'' ?>%>C+ 10' <B10=' +@>'
B#%+ +#D>' 1''C1BA>+ +1.?' J@1' A.>??>D' +1' $>' >0.1%%>D'
0' +@>' A.>?>0+' >KA>D + 10' @>' .>A1.+?' <0D' ?<0=# 0>'
?A>C#%<+ 10?' 1''+@>T ' .?+' <D,>0+#.>.?' @<D' 0'%<B>D' +@>'
C#A D +E' 1'' B<0E!' J@ C@' J<?' ?+ %%' '#.+@>.' @> =@+>0>D'
$E' +@>' >K@ $ + 10' 1'' +@>' . C@' <0D& C#. 1#?' A.1D#C+?'
J@ C@' 1%#B$#?' @<D' $.1#=@+' $<CH' J +@' @ B!' <0D'
$E' +@>' A1A#%<.' $>% >''+@<+' +@>' 0>J'D ?C1,>. >?' '1.B>D'
A<.+' 1''+@<+' =1.=>1#?' <?+!' J@ C@

Y' B, A' ,(A ' A%)5
A B ')'A '@,)' '4% 4% ,('3 % '%)5' ' 5 [

<0D' J@ C@' +.<D + 10' <0D' .1B<0C>' @<D' <% H>' 0,>?+>D'
J +@' +@>' ?#A>.0<+#.<%' ?A%>0D1#.?' 1'' >0C@<0+B>0+'
<0E' 1+@>.?' J>.>' ?+ B#%<+>D' $E' +@>' J %D' %1,>' 1''
<D,>0+#.>!' H 0D%>D' 0' +@>' %10=' 11. ?@' J<.?!' $#+'
J@ C@!' 01J'>KC%#D>D' '.1B' +@<+' C<.>>.!' ?1#=@+' 1+@>.'
1$">C+?' 0' +@>' ,<?+' #0+.<,>%%>D' .>= 10?' 1''+@>' >J'
1.%D' @>' C1BA%>B>0+' 1''+@>' '%>>+' J<?' 1.=0<%%E'
'K>D' <+' +J>%,>' @#0D.>D' ?1#%?!' J@ C@!' +@.1#=@' BM

(! FF.,,! FF.,,,! J' % ,%)%' /!J* 5 '8, '5' $'%'
8, '5' 3%,,% 1!',,!33!' :' 1!',.!33!' J61!' C

A1.+ 0 +'1.' ,<. 1#?' A.>+>0C>?' 1''+@>' <AA% C<0+?!' J<?' >,>0+#<%%E' ?J>%%>D'+1' ' '+>>0' @#0D.>D' B10='+@>?>' J>.>' B<0E' J@1' >0% ?+>D' J +@1#+' C1BA>0?<+ 10!' 0P C%#D 0=' ?>,>.<%' A>.?10?' 1''.<0H!' @ D<%=1?!'<0D' B>B P $>.?' 1'' +@>' .1E<%' @1#?>@1%D' @>' J@1%>' ?F#<D.10' <B1#0+>D'+1' ?>,>0+>>0' ,>??>%?!' +@.>>' 1''+@>B' 1'' 10>' @#0D.>D'+10?' $#.D>0' ><C@' +@' +@ ?' =<%%<0+' 0<,E!' 1%#B$#?!' D.1AA 0=' D1J0' +@>' #<D<%F# , .!' +11H' @ ?!' D>A<.+#.>' '.1B' +@>' $<E' 1'' <D G' 10' +@>' 78+@' 1'' >A+>B$>.' 6: L' A.>?>0+ 0=' <' ?+. H 0=' C10+.<?+' +1' +@>' B>%<0C@1%E' A% =@+' 0' J@ C@!' $#+' +@>' E><.' A.>P , 1#?!' @>' ?<%% >D' '1.+@' % H>' ?1B>' '1.%1.0' H0 =@+M>..<0+' 10' <' D>?A>.<+>' <0D' C@ B>. C<%' >0+>.A. ?> T

1' ?110>.' @<D' +@>' '%>>+' J> =@>D' <0C@1.' +@<0' >.D 0<0D' <0D' ?<$>%%<' D>?A<+C@>D' <0' >B$<??E' 0' ?1%>B0' ?+<+>' +1' <D, ?>' +@>' S 0=' 1''51.+#=<%' 1'' +' @ ?' >B$<??E' J<?' C1BA1?>D' 1''+J1' A>.?10?' 1''D ?P + 0=# ?@>D' .<0H!' 10' 5>D.1' D>' E<%<!' <0D' 10' <.C' 1A>G' D>' <.,<"<%' =.>><$%E' +1' +@> .' 0P ?+.#C+ 10?!' +@>E' .>A.>?>0+>D' +1' +@>' 51.+#=#>?>' B10P <.C@' +@>' 0<DB ?? $ % +E' 1''@ ?' A.1A1?+ 10?' .>?A>C+P 0=' +@>' $1#0D<.E' % 0>' 1'' 0<, =<+ 10L' +@>E' <.=#>D' +@<+' +@>' =.<0+?' 1''+@>' @1%E' ?>>!' <0D' +@>' +.><+E' J +@' A< 0!' 69:!' @<D' .>'>.>0C>' B>.>%E' +1' +@>' <C+#<%' A1??>?? 10?' 1''51.+#=<%!' <0D' +@>' . =@+' 1''D ?C1,>.E' $E' <0' ><?+>.0' .1#+>'<%10=' +@>' C1<?+?' 1'' '. C<' +1' +@>' 0D >?L' +@<+' +@>?>' . =@+?' @<D' $>>0' 0,<. <$%E' .>M

$' N$),'%')% ' 5' ., %' ' 4$' (%),(, ' (!',!' ,4! 3!' D !J)%)5' *)' 8, !' ,!J)G),' .%' .,' 4,' 5' 1, %) '(!'F ,.!J 1%>' 8, ,%' ,4!,' (!',F!J: 1%%' 5G' !'(!'(F.,,,!J !' % C' 8, '5' %')5,%' (!'FF!

?A>C+>D' $E' A< 0L' +@<+' +@>' %<+>' ,1E<=>' 1'' 1%#B$#?' ?+.#CH' 0+1' <' D .>C+%E' 1AA1? +>' +.<CHL' <0D' +@<+' +@>' ?>,>.<%' $#%%?' 1''51A>' %>K<0D>.' !' A.>?C. $ 0=' +@>' % 0>' 1''A<.+ + 10!' 01+' '.1B' ><?+' +1' J>?+!' $#+' '.1B' +@>' 01.+@' +1' +@>' ?1#+@' A1%>!' J>.>' 0+>0D>D' +1' ?>C#.>' +1' +@>' A<0 <.D?' +@ ' >KC%#? ,>' . =@+' 1''D ?C1,>.E' 0' +@>' J>?+>.0' 1C><0' @>' <B$<??<D1.?' C10C%#D>D' J +@' 1''>. 0=!' 0' +@>' 0<B>' 1''+@> .' ?1,>.> =0?!' +1' .>'>.' +@>' J@1%>' B<++>.' 0' D ?A#+>' +1' +@>' <.$ +.<+ 10' 1'' +@>' C1#.+& 1'' 1B>!' 1.' 1''<0E' C1B B10' #BA .>

S 0=' /1@0' J<?' D>>A%E' C@<=. 0>D' <+' %><.0 0=' +@>' D>A<.+#.>' 1''+@>' A<0 ?@' >KA>D + 10' >' ?<J' +@<+' @ ?' . ,<%?' @<D' $>>0' <C+ 0=' J@ %>' @>' @<D' $>>0' <B#?P >D' J +@' 0>=1+ <+ 10' >' <+' ' .?+' +@.>J' 1#+' @ 0+?' 1''<0' B B>D <+>' .#A+#.>L' <0D' >0D><,1#.>D!' +' ?' ?< D!' +1' 0+ B D<+>' +@>' <?+ % <0' <B$<??<D1.?' $E' $. 0= 0=' +@>B' <CC D>0+<%%E!' <?' +' J>.>!' 0' A.>?>0C>' 1''<' ?A%>0P D D' <..<E' 1''C<,<%.E!' B1#0+>D' <0D' .><DE' '1.' B B>D P <+>' ?>., C>' >' ,>0+>D' @ ?' ?A%>>0' 10' +@>' >B$<??E!' $E' D>C%<. 0=' +@<+' Q' +' J<?' <'XB>.>' <$1.+ 10!' @<, 0=' 0> +@>.' @><D' 01.' '>>+<%%#D 0=' +1' +@>' A>.?10<%' 0P ' .B +E' 1''E<%<!' J@1' J<?' %<B>!' <0D' +1' +@>' % =@+' '. ,1%1#?' C@<.<C+>.' 1''+@>' 1+@>.' >0,1E T

@>?>' ?EBA+1B?' 1'' D ?C10+>0+' J>.>' D#%E' 01+ ' >D' +1' +@>' A<0 ?@' =1,>.0B>0+!' J@1'C1B B<0D>D' +@>' ?#P A>. 0+>0D>0+' 10?>C<' +1' H>>A' <' , = %<0+' >E>' 10' +@>' B1,>B>0+?' 1''+@>' 51.+#=#>?>!' <0D' 0' C<?>' <0E' @1?P + %>' <.B<B>0+' ?@1#%D' F# +' +@> .' A1.+?!' +1' $>' 0' .><D M

L' * 5 ' 8, ' 5 ' $'% ' 8, ' 5 ' $. ' $)5 ' ,4',. ' 1!' ,.!' 33!' 6 J 6I! J $,, G' (!' FF.,,!' FF.,,,!

ʻ ʻ * ʻ E :

0>??ʻ +1ʻ <C+ʻ <=< 0?+ʻ +ʻ J +@ʻ 10>ʻ D1#$%>ʻ +?ʻ '1.C>ʻ S 0=ʻ /1@0!ʻ @1J>,>.!ʻ J<?ʻ +11ʻ ?@.>JDʻ <ʻ A. 0C>ʻ +1ʻ $>ʻ D.<J0ʻ 0+1ʻ ?1ʻ BA1% + Cʻ <ʻ B><?#.>ʻ <?ʻ <ʻ J<.ʻ J +@ʻ <ʻ A1J>.'#%ʻ <D,>.?<.E!ʻ F# +>ʻ <?ʻ % H>%Eʻ +1ʻ $<''%>ʻ @ Bʻ 0ʻ +@>ʻ ' >%Dʻ <?ʻ 0ʻ +@>ʻ C1#0C % ʻ > +@>.ʻ D Dʻ @>ʻ .>% ?@ʻ +@>ʻ ?#==>?P + 10ʻ 1''D>C D 0=ʻ +@>ʻ D ?A#+>ʻ $Eʻ <.$ +.<+ 10Lʻ ? 0C>ʻ @>ʻ J>%%ʻ H0>Jʻ +@<+ʻ @ ?ʻ C%< Bʻ .>?+>Dʻ 10ʻ +11ʻ #0?1#0Dʻ <ʻ $<? ?ʻ +1ʻ <#+@1. G>ʻ +@>ʻ >KA>C+<+ 10ʻ 1''ʻ <ʻ '<,1#.<$%>ʻ <J<.Dʻ '.1Bʻ <0Eʻ BA<.+ <%ʻ #BA .>ʻ >ʻ @<Dʻ <%.><DEʻ '< %>Dʻ 0ʻ <0ʻ <AA% C<+ 10ʻ '1.ʻ .>D.>??ʻ +1ʻ +@>ʻ C1#.+ʻ 1''1B>!ʻ J@ C@ʻ <0?J>.>Dʻ@ Bʻ $Eʻ .>'>.>0C>ʻ +1ʻ +?ʻ $#%%?ʻ .>C>0+%Eʻ A#$% ?@>Dʻ 0ʻ +@ ?ʻ >B>.=>0CEʻ @>ʻ C<B>ʻ +1ʻ +@>ʻ .>?1%#+ 10ʻ <+ʻ %<?+!ʻ J@ C@ʻ ?@1#%Dʻ @<,>ʻ $>>0ʻ ' .?+ʻ <D1A+>D!ʻ 1''D>C D 0=ʻ +@>ʻ B<++>. $Eʻ <ʻ '< .ʻ <0Dʻ 1A>0ʻ C10'>.>0C>ʻ +ʻ J<?ʻ 01+ʻ #0+ %ʻ +@>ʻ '1%%1J 0=ʻ E><.!ʻ @1J>,>.!ʻ +@<+ʻ @ ?ʻ D ?C10+>0+ʻ ?1ʻ '<.ʻ ?#$? D>Dʻ <?ʻ +1ʻ <%%1Jʻ @ ?ʻ <CF# >?C>0Cʻ 0ʻ +@ ?ʻ B><?#.>

+ʻ %>0=+@!ʻ C1B B ?? 10>.?ʻ 0<B>Dʻ $Eʻ+@>ʻ+J1ʻC.1J0?ʻ .>?A>C+ ,>%E!ʻ C10,>0>Dʻ <+ʻ 1.D>? %%<?!ʻ <0Dʻ 10ʻ +@>ʻ 9+@ʻ 1''/#0>ʻ 6:6ʻ ?#$?C. $>Dʻ <.+ C%>?ʻ 1''<=.>>B>0+!ʻ J@ C@ʻ J>.>ʻ .<+ ' >Dʻ 0ʻ +@>ʻ C1#.?>ʻ 1''+@>ʻ ?<B>ʻE><.ʻ $Eʻ +@>ʻ .>?A>C+ ,>ʻ A1J>.?ʻ 0ʻ +@ ?ʻ +.><+E!ʻ +@>ʻ A<P 0<.D?ʻ J>.>ʻ ?>C#.>Dʻ 0ʻ +@>ʻ >KC%#? ,>ʻ . =@+ʻ 1''0<, P =<+ 10ʻ <0Dʻ D ?C1,>.Eʻ 0ʻ +@>ʻ J>?+>.0ʻ 1C><0ʻ +ʻ +@>ʻ #.=>0+ʻ .>B10?+.<0C>ʻ 1''+@>ʻ 51.+#=#>?>!ʻ @1J>,>.!ʻ J@1ʻ C1BA%< 0>Dʻ +@<+ʻ +@>ʻ A<A<%ʻ % 0>ʻ 1''D>B<.C<+ 10ʻ C11A>Dʻ #Aʻ +@> .ʻ >0+>.A. ?>?ʻ J +@ 0ʻ +11ʻ 0<..1Jʻ % B +?!ʻ +@>Eʻ C10?>0+>Dʻ +@<+!ʻ 0?+><Dʻ 1''10>ʻ@#0D.>D!ʻ +ʻ?@1#%Dʻ $>ʻ .>B1,>Dʻ +@.>>ʻ @#0D.>Dʻ <0Dʻ ?>,>0+Eʻ %><=#>?ʻ J>?+ʻ 1''+@>ʻ <A>ʻ D>ʻ >.Dʻ ?%<0D?!ʻ $>E10Dʻ J@ C@ʻ <%%ʻ D ?M

C1,>. >?' ?@1#%D' <AA>.+< 0' +1' +@>' A<0 ?@' 0<+ 10 ' +'
J<?' <=.>>D' +@<+' 10>' 1.' +J 1' C<.<,>%?' ?@1#%D' $>' A.1P
, D>D' $E' ><C@' 0<+ 10!' +1' B >>+' <+' +@>' .<0D' <0<.E!'
<0D' A.1C>>D' D#>' J >?+' +@>' <AA1 0+>D' D ?+<0C>!' J +@'
<' 0#B$>.' 1''?C >0+ ' C' B>0' 10' $1<.D!' '1.' +@>' A#.A1?>'
1''<CC#.<+>%E' D>+>.B 0 0=' +@>' %10= +#D>L' <0D' ''<0E'
%<0D?' ?@1#%D' '<%%' #0D>.' +@>' B>. D <0!' +@>' D .>C+ 10' 1''
+@>' % 0>' ?@1#%D' $>' <?C>.+< 0>D' $E'+@>' >.>C+ 10' 1''$><P
C10?' <+' ?# +<$%>' D ?+<0C>?' @>' A.1A1?>D' B>>+ 0='
0>,>.' +11H' A%<C>L' $#+' +@>' .>B1,<%' 1''+@>' A<.+ + 10'
% 0>' J<?' '1%%1J>D' J +@' BA1.+<0+' C10?>F#>0C>?' +1'
+@>' 51.+#=#>?>!' J@1' D>. ,>D' '.1B' +' +@> .' A.>+>0P
? 10?' +1' +@>' 01$%>' >BA .>' 1''.<G % T

@#?' +@ ?' ? 0=#%<.' B ?#0D>.?+<0D 0=!' J@ C@' B>P
0<C>D' <0' 1A>0' .#A+#.>' <+' 10>' + B>!' J<?' @<AA %E'
<D"#?+>D' 1.+#0<+>%E' +@>' <CC1BA% ?@B>0+' 1''+@>'
A<??<=>' .1#0D' +@>' <A>' 1''11D' 1A>!' J@ C@' 1CP
C#..>D' ?110' <'+>.J<.D?!' %>D' +@>' 51.+#=#>?>' 0' <0'
1AA1? +>' D .>C+ 10' +1' +@> .' A<0 ?@' . ,<%?L' +@> .' .<P
G % <0' A1??>?? 10?' @<, 0=' +11' % ++%>' <++.<C+ 10?!' <+'
' .?+!' +1' +#.0' +@>B' '.1B' +@>' ?A%>0D D' A<+@' 1''D ?P
C1,>.E' +@.1J0' 1A>0' 0' +@>' <?+' +' J<?' 01+' B<0E'
E><.?!' @1J>,>.!' $>'1.>' +@>' +J1' 0<+ 10?!' $E' A#.?# 0='
1AA1? +>' .1#+>?' 1''C .C#B0<, =<+ 10!' J>.>' $.1#=@+'
0+1' C1%% ? 10' 10' +@>' 1+@> ' ? D>' 1''+@>' =%1$>L' <' C .P
C#B?+<0C>' 0>,>.' C10+>BA%<+>D!' <AA<.>0+%E!' $E' +@>

L' %.% ' (!' ,3!' !' 8, '5' 3%)%' 1!,,!'33!' '
/6J % ,%'C' $%' $ 3%' >' /!J * 5 '8, '5' $'% '
$'$ %' 1!',,!'3!'D !J8 >' 1!',.!'33!' J !JN$,%'
%')5,%' ((,5)% ' (!',!')%' 5' %') ' 1!'.!'0 !'
,4!' ,,!' (%3!' .,,,!' F!J % ,%)%' !

* E : * !

+.><+E 1' 1.D>? %%<?' @> .' B#+#<% A.>+>0? 10?' J>.>' '1#0D>D!' @1J>,>.!' 10' +@>' A.1, ? 10?' 1'' +@<+' +.><+E!' J@ C@!' +@>' .><D>.' ?' <J<.>!' J<?' +?>%''10%E' ?#AA%>P B>0+<.E' +1' +@>' 1. = 0<%' @#%%' 1''D>B<.C<+ 10' 1'' %>KP <0D>.' T' @#?' +@ ?' $1%D' ?+.>+C@' 1''A<A<%' <#+@1. +E!' ?1' 1'+>0' . D C#%>D' <?' C@ B>. C<%' <0D' <$?#.D!' J<?' 0' <' B><?#.>' "#?+ ' >D' $E' +@>' >,>0+!' ? 0C>' +' D D!' 0' '<C+!' D>+>. B 0>' +@>' A. 0C A%>?' 10' J@ C@' +@>' ,<?+' >K+>0+' 1''#0<AA.1A. <+>D' >B A .>' 0' +@>' ><?+>.0' <0D' J>?+>.0' @>P B ?A@>.>?' J<?' #%+ B<+>%E' D , D>D' $>+J>>0' +J 1' A>++E' ?+<+>?' 1'' #.1A>

L' A' ( ) 5' , C' B%' , ' 3) ,) ',)' ( ) ,5 %,)' A' $((%, %)5 'BA,(A' %(A' 0' 6 ' 5$(% ' 3%,5' 4C' A' 3% C' (%,1 5'0 ', 0'4C'., $' ($ ' 0' ,4)!' ' * 5 '8, ' 0' A' % C' 0' 5 , %!' 0; 5 ' $'% ' 1!',.! 33!' H!' ' 1 ' A%)') ' ( )' ' ,)' D 'D !DI !J % ,%)%' 8, ' BA,(A' % ' A '(1 ' %3A,(%' (,; 5 ' 3%)%' 1!',,! 33!' /! I/6!')(' 0' A ' 5%C' B%' 3$ ',)' ; J % %G%' 5 ')5 G%')% ' 2$, , ,) ' A ' %00%, ' B%' 1,; 2$,%' 5 ' 3%0,%' 1!',,! 33!' 6')% 5' A' %,1%4 ' 4C' A ' 3%; !
), A' ' .)1) ' ,)2$, A,)'

5 ; ;

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'<.' <?' A1?? $%>' +?' >0+ .>' .>?#%+?!' <+' <' ? 0=%>' =%<0C>!' +1' +@>' >E>' 1''+@>' .><D>.

>' @<,>' ?>>0!' 0' <' A.>C>D 0=' C@<A+>.!' +@>' <#?A P C 1#?' % +>.<.E' A.1B ?>' <''1.D>D' $E' +@>' .> =0' 1'' ?<P $>%%< ?' '<+@>.!' /1@0' ' 1'' <?+ %>' 0D>.' +@>' <0<.M' C@ C<%' ?J<E' 1''@ ?' ?10' >0.E' !' +@>' C1#.+!' <?' J>' @<,>' ?>>0!' J<?' <$<0D10>D' +1' #0$1#0D>D' % C>0C>L' <0D' +@>' J@1%>' 0<+ 10' ?#0H' 0+1' <' B>0+<%' +1.A1.!' '.1B' J@ C@' +' J<?' .1#?>D' 10%E' $E' +@>' +#B#%+?' 1'' C , %' J<.' 0' +@ ?!' D>A%1.<$%>' ?+<+>' 1'' +@ 0=?!' +@>' '>J' $%1??1B?' 1''% +>.<+#.>!' J@ C@' @<D' $>=#0' +1' 1A>0' #0D>.' +@>' $>0 =0' 0'%#>0C>' 1'' +@>' A.>C>D 0=' .> =0!' J>.>' ?A>>D %E'+.<BA%>D' #0D>.' '11+!' <0D' >,>.E' ,>?+ =>' 1'' C , % G<+ 10' ?>>B>D' 0' <' '< .' J<E' +1' $>' >''<C>D' '.1B' +@>' %<0D

@>' ' .?+' E><.?' 1'' >.D 0<0D' <0D' ?<$>%%< ?' =1,>.0P B>0+' J>.>' +11' B#C@' C%1#D>D' $E' C , %' D ??>0? 10?' +1' <''1.D' <' B#C@' B1.>' C@>>. 0=' A.1?A>C+' >.D 0<0D ?' ><.%E' >D#C<+ 10!' B1.>1,>.!' @<D' $>>0' =.><+%E' 0>=P %>C+>D' >'1.>' +@>' <=>' 1''+>0!' @>' J<?' C<%%>D' +1' +<H>' A<.+' 0' +@>' <+<%<0' J<.?' ?' $1E@11D' J<?' ?A>0+' <B10=' ?1%D >.?!' 0' C<BA?' 0?+><D' 1''?C@11%?L' <0D' +@>' J?D1B' J@ C@' @>' ?1' >B 0>0+%E' D ?A%<E>D' 0' %<+>.' % '>!' J<?' D.<J0' '<.' B1.>' '.1B' @ ?' 1J0' .>?1#.C>?' +@<0' '.1B' $11H?T

?<$>%%<' J<?' .><0AD' #0D>.' B1.>' '<,1#.<$%>' <#?P A C>?' L' <+' %><?+' B1.>' '<,1#.<$%>' +1' B>0+<%' C#%+#.>' @>' J<?' <%%1J>D' +1' A<??' @>.' E1#+@' 0' .>+ .>B>0+!' <0D' 0D>>D' 1$% , 10!' <?' '<.' <?' +@>' J1.%D' J<?' C10M

C>.0>D!‘ #0D>.‘@>.‘ B1+@>. ?‘C<.>‘<+‘ .>,<%1‘ 0‘+@ ?‘
B1D>?+‘ ?>C%#? 10!‘ '.>>‘ '.1B‘ +@>‘ >0=.1?? 0=‘ ,<0 + >?‘
<0D‘ ,>K<+ 10?‘1''C1#.+‘% '>!‘ ?@>‘@<D‘ '#%%‘%> ?#.>‘+1‘ 0P
D#%=>‘ +@>‘ @<$ +?‘ 1''?+#DE‘<0D‘ .>'%>C+ 10‘ +1‘ J@ C@‘
@>.‘ +>BA>.‘ 0<+#.<%%E‘ D ?A1?>D‘ @>.‘ @>‘ J<?‘ <CP
F#< 0+>D‘ J +@‘ ?>,>.<%‘ B1D>.0‘ %<0=#<=>?!‘ <0D‘ $1+@‘
J.1+>‘<0D‘ D ?C1#.?>D‘ 0‘ @>.‘ 1J0‘ J +@‘ =.><+‘ A.>P
C ? 10‘<0D‘>%>=<0C>‘ 1‘=.><+‘>KA>0?>‘1.‘?1% C +#D>!‘
@1J>,>.!‘ <AA><.?‘+1‘@<,>‘ $>>0‘%<, ?@>D‘10‘@>.‘>D#P
C<+ 10‘ @>‘ J<?‘ #0 0?+.#C+>D‘ 0‘ +@>‘ <+ 0!‘ J@ C@‘
0‘+@<+‘D<E‘J<?‘1''=.><+>.‘ BA1.+<0C>‘+@<0‘<+‘A.>P
?>0+‘L‘ ? 0C>‘ +‘J<?‘01+‘ 10%E‘+@>‘C1BB10‘B>D #B‘1''
C1BB#0 C<+ 10‘ $>+J>>0‘%><.0>D‘B>0!‘ <0D‘+@>‘%<0P
=#<=>‘ 0‘ J@ C@‘ +@>‘ B1?+‘'<B %<.‘ +.><+ ?>?‘ J>.>‘
1'+>0‘C1BA1?>D!‘ $#+‘ J<?‘ ' >F#>0+%E‘ #?>D‘ $E‘J>%%‘
>D#C<+>D‘ '1.> =0>.?‘ <+‘ C1#.+!‘ <0D‘ >?A>C <%%E‘ >BP
A%1E>D‘ 0‘D A%1B<+ C‘ 0+>.C1#.?>‘<0D‘0>=1+ <+ 10 T‘
?<$>%%<‘.>?1%,>D‘+1‘.>A< .‘+@>‘D>'>C+?‘1''>D#C<+ 10‘
$E‘D>,1+ 0=‘@>.?>%''+1‘+@>‘<CF# ?+ 10‘1''+@>‘ <+ 0‘
+10=#>!‘?1‘?110‘<?‘+@>‘D ?+.<C+ 0=‘J<.?‘J +@‘51.+#P
=<%‘J@ C@‘<++>0D>D‘@>.‘<CC>?? 10‘J>.>‘+>.B 0<+>D
X >‘@<,>‘<‘%>++>.‘'.1B‘5#%=<.‘<DD.>??>D‘+1‘+@>‘
F#>>0‘?110‘<'+>.‘+@<+‘>,>0+!‘0‘J@ C@‘@>‘0F# .>?‘
C10C>.0 0=‘@>.‘A.1=.>??!‘0+ B<+ 0=‘@ ?‘?#.A. ?>‘+@<+‘
?@>‘C<0‘'0D‘+ B>‘'1.‘?+#DE‘<B D?+‘@>.‘B#%+ +#D>‘1''
>0U 1?? 0=‘1CC#A<+ 10?!‘<0D‘>KA.>?? 0=‘@ ?‘C10'D>0C>‘
+@<+‘?@>‘J %%‘<CF# .>‘+@>‘ <+ 0‘J +@‘+@>‘?<B>‘'<CP
% +E‘J +@‘J@ C@‘?@>‘@<D‘<%.><DE‘B<?+>.>D‘1+@>.‘%<0P
=#<=>?‘ @>‘.>?#%+‘"#?+ ' >D‘@ ?‘A.>D C+ 10‘L‘'1.‘Q‘0

L‘ !‘ !‘ ,($ ‘* %‘ 1 !5‘ 3%)%‘0 !‘ 6D!‘ I
‘ ‘

%>??' +@<0' <' E><.!R' 1$?>.,>?' <01+@>.' C10+>BA1.<.E!' Q'@>.' <DB .<$%>' =>0 #?' >0<$%>D' @>.' +1' 1$+< 0' ?1' =11D' <' H01J%>D=>' 1'' +@>' <+ 0' +10=#>' +@<+' ?@>' C1#%D' #0D>.?+<0D' J +@1#+' B#C@' D '' C#%+E' J@<+>,>.' J<?' J. ++>0' 1.' ?A1H>0' 0' + RT

?<$>%%<' 0@>. +>D' @>.' '<+@>.' /1@0' ?' +<?+>' '1.' +@>' C1%%>C+ 10' 1'' $11H?' ! @>' >0D1J>D' +@>' C10,>0+' 1'' <0' /#<0' D>' %1?' >E>?' <+' 1%>D1!' <+' +@>'+ B>' 1'' +?' '1#0D<+ 10!' 699!' J +@' <' % $.<.E' C10? ?+ 0=' A. 0P C A<%%E' 1'' B<0#?C. A+? Z' @>' <.C@ ,>?' 1'' B<0C<?

L' *% '5' %')% ',4',,!' (!' F,,!' ' 2!' %3$5' 1!' 5' %' %' (%5' 5' 8, !' 1!'.,!' $!' FF,!' J' $ '% ' %'< 5!' 1 5!' / < !'F,!J' !' !' ,($, ' * %' 1!' 0 ! I !

',' $00,(,)' .,5)(' 0'A' 0%1, ,% ,C'B,A' A' %,)' A%' A' T'%55 5' A' ( ); 0 ' 1' 'A%.'4)'B ,)' ,)' A%' %)'$%' %)5' A' *% ,; ,%)',)5,00) C' FA,4, ,)'' (; (% ,)% C' %' ($, $' 3% (AB @' ,)' A' %)% ' $ ' 0' %(A',)' A' %1' 3, ! ' * ; 3)5!' 3, !'%3!' 1!'5' (%5' 5' 8, !' 1!'.,!' $!'F,,!

]' ., $' ' A',) 5$(,)' 0'3 ,) ,)'' ((,)' 0'4 @' B ') (%,C'. C' 1%'%)5' A,) C' (% 5' B,)'' ' A' F 1' (' 0' 1%)$ (,3 !' A' %) 5' % G'A2' ((5' 1' ($, $' 3% ,($ % ' % ,. ' ' A,' 1% !' A' 1 ' (3, $' ,4 % C' BA,(A' A' ($5'0,)5'%)C' %((,1' 0',)' A' 1,55 ' 0' A' 0,0) A' ( ) $ C' B%' B) 5'4C A' * $) ' 0')%.) ' %)5' ( ) %,) 5') ' 1 ' A%)') ' A$)5 5' %)5' B) C'. $1 !' %)C' 0' A ' B ' 5$3 ,(% < 0' ,.C'%)' A ' B ' ,'A' (3, !' A' (% A 5 %' (A$ (A ' ,)' 3%,)') 5' A ,'4 @' . C' C %' %' %$(,)' ' A' A,'A ' 4,55 ' BA)(' A C'5). 5' %' ( ) ,5 %4 ' .)$!' 'B $5' %33 %' 0, 1'%' (3C' 0' : %,%)K' (%))' 3 . 5',)' A' * > ,) ' 1)% C' ,)' % , ' A%' A' (3C, 'B%')'%' 5' B) C>') ' 1) A',)' %) (,4,)'' A%' 1%)$ (,3 !' ' A, ' % ' A' 3 5$(,)' 0'0 $' A $ %)5' (; 3, '4C') 'A%)5'B $ 5' 2$, ') % C' ,'A' A $ %)5' C % < %' B @') B' %, C' 3 0 1 5',)' ' A%)' 0 $' 1) A ! $(A' B%' A' % 5,) '40'1$,3 C,)'' (3, ' 4 0 ' A',).) ,)' 0' 3 ,) ,)'! B' A $ %)5'. $1 ' 1%C'4'3 ($ 5') B' %' %'3 ,(' BA,(A' ,)' A ' 5%C' B $ 5' A% 5 C' A%. ' $00,(5' '3$ (A% ' 0,0 C!' ' % %5 ' 5') 5% > 5') ,2$' ! %3! % ,)' 1!',!'33!' H ' 0

C1O+< O C<+<%1=#>? 1 'A<.+ 1 '+J 1 ?>A<.<+> C1%%>C+ 1O?! $>%1O= O= +1 @>.! J@1?> $.1H>O .>B< O? @<,> C1O+. P $#+>D +1 ? J>%% +@> B<=O ' C>O+ % $.<.E 1 '+@> ?C#M . <% 1?+ 1 '+@>B <.> O B<O#?C. A+L +@> . C@%E C1%1#.>D <OD @ =@%E D>C1.<+>D $ OD O= 1 '+@>?>, 1P %#B>? -<O <.+ J@ C@ +@> A<O <.D? D>. ,>D '.1B +@> .<$?* ?@1J ? @1J @ =@%E +@>E J>.> A. G>D! <OD +% > J1.O <OD $<++>.>D C1OD + 1O 1 '?1B > 1 '+@>B A.1,>? +@<+ +@>E J>.> 01+ H>A+ B>.>%E '1. ?@1J T

@> F#>>O B<O '>?+>D +@> B1?+ ><.O>?+ ?1% C +#D> '1. +@> O?+.#C+ 1O 1 '@>.' 1JO C@ %D.>O > .' D<#=@P +>.? J>.> >OD1J>D $E O<+#.> J +@ <B <$%> D ?A1? P + 1O?! +@<+ ?>C1OD>D @>.' B<+>.O<% >''1.+?' @> B1?+ C1BA>+>O+ B<?+>.?! O<+ ,> <OD '1.> =O! >?A>P C <%%E '.1B +<%E! +@>O ?1 <C+ ,> O +@> +>, ,<% 1 '<OC >O+ %><.O O=! J>.> >BA%1E>D O +@> .' +# + 1O @ ? J<? A<.+ C#%<.%E O+.#?+>D +1 +J 1 $.1+@>.?! O+1O 1 <OD %>??<OD.1 >.<%D O1! O<+ ,>? 1 '+@<+

L %.%', +E,%' ', ,)3%'>)%'O ! 4 5! E,),G,%' O : ! J 1! 5 % % (%5 5 8, ! 1! .,! $! F.,,!
A % ' ((,)' (1; 3, 5 %4 $ B $15 5 %)5) % ,(, 5, ,)(B @ ! O A %4 $ %' A, 5 , %@)' $3 B, A A 'C (13 A)5; ,)' ,4 % , % ,. O %,) %)5 B @ O A 0% A <) >0,0 A (,., %B %)5 1$),(,3% (5 O 3%,)4) > O $ A %)(,)' (% ,(1 5 1 , % $ %)5 1%)(O (A,; .% C<) >) A A, C A ,5$, 5 . 5 A,(1 5,(,) Q' %,A1% % 'C \(! A) C % ,%)' %$ A 4 ,5)% 5 $) 5K G; G , ((%((, ! A B @ O A % B , ( ) , 5 O A ,%1 1 % A % , * %,4$ $,$1 E, $1 %)5 * %, $, ,4$ %)5 3 4%4 C A (%1)< A 0, ,)' A % ,%) %)5 A A % % %) % 5 ,) A 3%), A! , , ,)'$ % A%) , A O ((%((, K' % ( ) 13 % , %)) % (A A 0 1 O BA 1 A%5 4) %) % 5 4C E,)% %)5 ,1, % 5 4C?$%) 5)% A% O% ( ) $ C 4 0 A $ 5 A%. 0 $)5%3%(,) A ((,)!

C1#0+.E 1+@ 4 C10?A C#1#? '1. +@> . <$ % + >? <0D C%<?? C<% >.#D + 10 <0D +@> %<++>.! J@1 ?#., ,>D @ ? $.1+@>. 0+10 1! J<? ?#$?>F#>0+%E .< ?>D +1 @ =@ >CC%>? <?+ C<% A.>'>.B>0+? T 0D>. +@>?> B<?+>.?! +@> 0'<0+<? B<D> <++< 0B>0+? .<.>%E A>.B ++>D +1 +@> ?>K! <0D <CF# .>D ?#C@ '<B % <. +E J +@ +@> <+ 0 +10=#> >?A>C <%%E! <? >KC +>D % ,>%E <DB .<+ 10 <B10= +@1?> 1,>. J@1B +@>E J>. > C<%%>D +1 A.>? D> 0 . A>. E><.? '

L)), A 5 5, 5,) DII 3% 0A, % ,)3 ,(% B @) , 5 %(5 $(,(B% 3 ,) 5 ,) 6 6 % % %; 1%)(%! A C $)' 4 A %)5 %0 4 %,) '% 1 ,) A $'$ B% B% $4; 2$) C 0)3 C 5 ,) A ,); $(,) 0 A ,)0%) % 0,)% C 14 %(5 A ((,% ,(% % %)5 5, 5 , A 3 0 ! 1,)' 6 6! 1!5 % %(%5 8, 1! .,! $!F.,!J , %4 (A, % $ % %,)% 1! .,! 3% !,,! 3! I6! A %) 5E%)(,%) $, E,. ,)A, % , *A , ; ,%)% 1,)% 1% @ YT %) 2$% $, % %4 >' ',) 0, ,% 2$% 3%$ 5 %) 1 1 %.,$5, % .,5, !) ,) %$5,4$ %51, % ,) >0 ,$> 1,A, 3% ,1',) A%(% ? %))%1 A, ,33, ( )+$' 1 *% -A$+$ 1% 1 F 1; 3 % ,), % ,),4$ 2$ 5 1 %3$5) . 3 ,)(,3 3> 3,5% ,1 A%4) $ % ,) 3)> 5, ! 5 1 5 ',)% $,! ? > %)) , %),3 % 5,(%) <,5 1 1) 5 5 5$%4$ % %,, 2$% ,) $, %),% 0% ( )(> ![P *A , ,%)% 1,)% (! ,.! %3! 1! 5 (%5! 1! .,! $!F.,!J %33 % A B . A% %4 %B%) ,)%) ,. A 1 A$14 %((13, A; 1) ,) A 5$(%,) 0 A 5%$'A ! : ',)% [%C A %1 %$ A Y) $ %($ 3,) 2$% $ 0, ,% $% 5 (> % . $, ![ ) A ( ); 13 % C A %$ A 0 A *% 5 % 0,% P ,4!,,! (! F,,! %3! 1! 5 (%5! $ FF,!X %C Y A 5$(% 5A)%)5 5%$'A ', .,) ' A 1 1% 0 ,0 %)5 %)5 $ F15> ,) ' A 1 B, A $(A 3) %)5 5 1%@ A 1 . 0 (,)%)5 @,) ' ,) A %.)![% 1$) ,(A , % C % %,) 1) 0 A C $)' 5%$'A 0 A . ,') A $)0 $)% *% A% ,) 0 %; ') B, A$)2$% ,0, 5 %51, % ,)!)) 0 A, A C A : ' ', 5 (%1%)5 ,) %) A A 1% @ Z ',)%)) %) $1 ,) F$ 1, %($ $1 , % % <) (1,)$ 3, % $ 3,(,)5% 2$%1 $5, ,) ![3, % ,4! F,F! 3! FFF,!< ,4! ,,! 3! FF,.!

‘ ?+ %%‘ D>>A>.‘ <0K >+E‘ J<?‘ ?@1J0‘ 0‘ +@>‘ >D#C<+ 10‘ 1’‘@>.‘ 10%E‘ ?10‘ 5. 0C>‘ /1@0!‘ @> .‘ 1’‘+@>‘ #0 +>D‘ A<P 0 ?@‘ B10<.C@ >?‘ ‘ ,>.E‘ A.>C<#+ 10‘ J<?‘ +<H>0‘ +1‘ +.< 0!‘@ B‘ #A‘ 0‘ <‘ B<00>.‘ +@<+‘ B =@+‘ +>0D‘ +1‘ +@>‘ ‘1. B<+ 10‘ 1’‘+@>‘ C@<.<C+>.‘ ?# +>D‘ +1‘ @ ?‘ >K<%+>D‘ ?+<P + 10‘ ‘ >‘ J<?‘ A%<C>D‘ 0‘ <‘ C%<??‘ C10? ?+ 0=‘ 1’‘ +>0‘ E1#+@?!‘ ?>%>C+>D‘ ‘.1B‘ +@>‘ ?10?‘ 1’‘+@>‘ A. 0C A<%‘ 01$ P % +E‘ ‘ ,>‘ 1’‘+@>B‘ J>.>‘ 1’‘@ ?‘ 1J0‘ <=>!‘ <0D‘ ‘ ,>‘ 1’‘ . A>.‘ E><.?!‘ <0D‘ +@>E‘ J>.>‘ <%%‘ $.1#=@+‘ +1‘ .>? D>‘ J +@‘ @ B‘ 0‘ +@>‘ A<%<C>‘ ‘ E‘ +@ ?‘ B><0?!‘ +‘ J<?‘ @1A>D‘ +1‘ C1B$ 0>‘ +@>‘ <D,<0+<=>?‘ 1’‘A#$% C!‘ J +@‘ +@1?>‘ 1’‘ A. P ,<+>‘ >D#C<+ 10‘ L‘ J@ C@‘ %<?+!‘ ‘.1B‘ +?‘ ?1% +<.E‘ C@<.<CP +>.!‘ 0>C>??<. %E‘ >KC%#D>?‘ +@>‘ ?#$">C+‘ 1’‘ +‘ ‘.1B‘ +@>‘ J@1%>?1B>‘ 0’%#>0C>‘ >K>.+>D‘ $E‘ $. 0= 0=‘ +@>‘ A1J>.?‘ 0+1‘ D< %E‘ C1%% ? 10‘ J +@‘ <0+<=10 ?+?‘ 1’‘ <‘ ? B %<.‘ <=> T

‘ B B C‘ C1#0C %‘ J<?‘ <%?1‘ ‘1. B>D‘ 10‘ +@>‘ B1D>%‘ 1’‘ <‘ C1#0C %‘ 1’‘ ?+<+>!‘ C1BA1?>D‘ 1’‘ ?# +<$%>‘ A>.?10?‘ 1’‘ B1.>‘ <D,<0C>D‘ ?+<0D 0=!‘ J@1?>‘ A.1, 0C>‘ +‘ J<?‘ +1‘ D>% $>.<+>‘ 10‘ <0D‘ +1‘ D ?C#??‘ +1A C?‘ C100>C+>D‘ J +@‘ =1,>.0B>0+‘ <0D‘ A#$% C‘ A1% CE‘ ‘ ,>.‘ +@ ?‘ $1DE‘ +@>‘ A. 0C>‘ A.>? D>D!‘ <0D‘ @>.>‘ @>‘ J<?‘ 0 + <+>D‘ 0+1‘ <‘ A.<C+ C<%‘ <CF#< 0+<0C>‘ J +@‘ +@>‘ BA1.+<0+‘ D#+ >?‘ J@ C@‘ J>.>‘ +1‘ D>,1%,>‘ 10‘ @ B‘ <+‘ <‘ ‘#+#.>‘ A>. 1D‘ 1’‘ ‘>‘ ‘ @>‘ A<=>?‘ 0‘ <++>0D<0C>‘ 10‘ @ ?‘ A>.?10‘ J>.>‘ U ?1‘ ?>%>C+>D‘ J +@‘ =.><+‘ C<.>‘ ‘.1B‘ +@>‘ C<,<% >.?‘ <0D‘ E1#0=‘ 01$ +E‘ 1’‘ +@>‘ C1#.+!‘ B<0E‘ 1’‘ J@1B‘ <‘+>.P J<.D?‘ ‘ %%>D‘ J +@‘ C.>D +‘ +@>‘ B1?+‘ C10? D>.<$%>‘ A1?+?

L‘ #$,)($%‘)%‘ 5‘ ‘ .,5‘ ‘ !‘ 5,%‘ ‘5‘ ‘ G%! J 1!‘5‘ ‘ %‘ %‘ (%5!‘ 1!‘ .,!‘ $!‘F,.!

0 +@> ?+<+> @> ?>,>.>. D ?C A% 0> 1'+@> A. 0C> J<? .>% >,>D $E <++>0+ 10 +1 B1.> % =@+ <0D >%>=<0+ <CC1BA% ?@B>0+? > D>,1+>D B<0E 1' @ ? %> ?#.> @1#.? +1 B#? C! '1. J@ C@ @> @<D < ' 0> 0<+#.<% +<?+>! <0D 0 J@ C@ @> <++< 0>D ?#'' C >0+ A.1' C >0CE +1 A>.'1. 0 J +@ ?H %% 10 < ,<. >+E 1' 0?+.#B>0+? 0 ?@1.+! @ ? >D#C<+ 10 J<? @<AA %E D>? =0>D +1 A.1D#C> +@<+ C1B$ 0<+ 10 1' B>0+<% <0D B1.<% >KP C>%%>0C>! J@ C@ ?@1#%D ' + @ B '1. .> =0 0= 1,>. @ ? ?#$">C+? J +@ $>0>,1%>0C> <0D J ?D1B

1J J>%% +@> ?C@>B> ?#CC>>D>D ? <$#0D<0+%E <+P +>?+>D $E +@> C1B B>0D<+ 10? 1'C10+>BA1.<.E J. +>.? $1+@ <+ @1B> <0D <$.1<D! J@1 >0%<.=> 10 @ ? '10DP 0>?? '1. %>++>.?! <0D '1. +@> ?1C >+E 1'%><.0>D B>0L 10 @ ? ,<. 1#? <++< 0B>0+?L <0D B1.> >?A>C <%%E @ ? <+ 0?C@1%<.?@ AL <0D! <$1,> <%%! 10 @ ? D ?A1? + 10 ?1 <B <$%> <? +1 = ,> A.1B ?> 1'+@> @ =@>?+ >KC>%%>0C> 0 B<+ .>. % '>!O <A.1B ?>! <%<?Z B1?+ #0'1.+#0<+>%E '1. @ ? 1J0 0<+ 10 D>?+ 0>D 0>,>. +1 $> .><% G>D T

>K+ +1 @>. 1J0 '<B %E!!+@>. J<? 01 1$">C+ J@ C@ +@> F#>>0 @<D ?1 B#C@ <+ @><.+ <? +@> BP A.1,>B>0+ 1'+@> E1#0= 01$ % +E #. 0=+@> +.1#M

#F,,)($%')% $4, $3 %! A%4 % % '%5)5,5 ?$%)5 %)(,)%,)A 5 ; ,1, 1,) 5 % (,)(,% 5,(% ,) A 3,)(0 A, 2$ 5 ,13 , Z A F; %) % ,) 0 E, ', K $(,(% 5,)% C3 1, 0 A, C $)' 3%C A 0 B,)' (13,1) A) ,'A) 5 %)5 ,4 % 3 ,)(? A)! 8 %. > 5, %) 0 ,)(? A)! 8 %. > % 5 % A BA,(A ((,$ 5 (, %) % (,)(,%%)5%)5 %(13%)%5 5 %) %)' 5 (> B% (11 1 % 5 4C %) 3,; , ,1 .%) 2$) 1) %3A 0 A %) 5 : @ F, 5 +% , 3 5$,%4 1 1 ,% 5 *) %) ,) % (% , !

$%>D‘ .> =0‘ 1’‘ @>.‘ A.>D>C>??1.!‘ +@>E‘ @<D‘ <$<0D10>D‘ +@>B?>%,>?‘+1‘ ’. ,1%1#?‘A%><? B>!‘ 1.‘+1‘ <‘ ?#%%>0‘ <A<+@E‘ ’.1B‘ J@ C@‘ 01+@ 0=‘ J<?‘ A1+>0+‘ >01#=@‘ +1‘ <.1#?>‘ +@>B‘ $#+‘ +@>‘ ,1 C>‘ 1’‘ J<. T‘ @>‘ J<?‘ 1$% =>D‘ +1‘ .>% 0F# ?@‘ @>.‘ A%<0?‘ 1’‘<B>% 1.<+ 10‘ D#. 0=‘ +@>‘ <%%M‘ >0=.1?? 0=‘ ?+.#==%>‘ J +@‘ .<0<D<!‘ J@> ’‘ +‘ J1#%D‘ @<,>‘$>>0‘>?+>>B>D‘<‘.>A.1<C@‘ ’1.‘ <‘ A<0 ?@‘ H0 =@+‘ +1‘ @<,>‘ >KC@<0=>D‘ +@>‘ A1?+‘ 1’‘ D<0=>.‘ 0‘ +@>‘ ’ >%D‘ ’1.‘+@>‘ >’’>B 0<+>‘ A#.?# +‘ 1’‘ %>++>.?‘ $#+‘01‘ ?110>.‘ J<?‘ +@>‘ J<.‘ $.1#=@+‘ +1‘ <‘ C%1?>!‘ +@<0‘ ?<$>%%<‘ .>P ?#B>D‘@>.‘A#.A1?>‘ @>‘.>F#>?+>D‘+@>‘%><.0>D‘5>+>.‘ <.+E.!‘ J@1‘@<D‘C1B>‘ 0+1‘ A< 0‘ J +@‘+@>‘ 1#0+‘1’‘ >0D %%<!‘<‘’>J‘E><.?‘A.>, 1#?!‘+1‘.>A<.‘+1‘+@>‘C1#.+!‘ <0D‘1A>0‘<‘?C@11%‘+@>.>‘’1.‘+@>‘ 0?+.#C+ 10‘1’‘+@>‘ E1#0=‘01$ % +E ’‘ 0‘<0‘>A ?+%>‘<DD.>??>D‘$E‘ <.+E.‘ +1‘ <.D 0<% >0D1G<!‘D<+>D‘’.1B‘ .<0<D<!‘ A % 6M:7!‘@>‘<%%#D>?‘+1‘+@>‘A.1B ?>‘1’‘<‘% $>.<%.>C1BP A>0?>‘’.1B‘+@>‘F#>>0‘ ’‘@>‘J1#%D‘<?? ?+‘ 0‘.>C%< BP 0=‘+@>‘E1#0=‘C<,<%>.?‘1’‘+@>‘C1#.+‘’.1B‘+@>‘ D%>‘ <0D‘ #0A.1’+<$%>‘A#.?# +?‘ 0‘ J@C@!‘+1‘@>.‘ =.><+‘ B1.+ ’C<+ 10!‘+@>E‘C10?#B>D‘+@> .‘@1#.?‘ @>‘A.>P "#D C>?‘+1‘$>‘>0C1#0+>.>D‘?>>B‘+1‘@<,>‘ ’%%>D‘@ B‘ J +@‘0<+#.<%D ?+.#?+‘1’‘@?‘?#CC>??L‘’1.‘@>‘.>B<.H?!‘ Q‘ H>‘+@> .‘<0C>?+1.?!‘+@>E‘@1%D‘+@>‘A#.?# +‘1’‘%>+P +>.?‘ 0‘% =@+‘>?+ B<+ 10!‘C10?D>. 0=‘+@>B‘<0‘1$?+<C%>‘ +1‘?#CC>??‘ 0‘+@>‘A.1’>?? 10‘1’‘<.B?!‘J@C@‘<%10>

L‘ Y‘ 0,(,)%5 ‘%‘%‘’$ %7K !F#0C‘!D<%‘
%C‘ ., 5‘ 3%@,)’‘ 0‘ 1‘ 0‘ ‘ 1‘%(($)‘ 0‘A,‘
C $)’‘) 4‘ 0‘A,‘,1‘Y‘>‘ 1,))‘%,%)‘(A %‘ ‘A‘
&"‘’&> A ‘=‘ !" ‘ 2‘ 3 (,3‘ ‘% ‘,!‘(A%3‘F,.‘
H #$,)($%’)%‘ !%! 0‘A,‘8, C!

I * ' !

+@>E' >?+>>B' J1.+@E' 1'' @101#. R' >' @1J>,>.' >KP A.>??>?' @ ?' C10@D>0C>!' +@<+' +@>' =>0>.1#?' 0<+#.>' 1'' +@>' A<0 <.D?' J %%' B<H>' +' ><?E'+1' 0'#?>' 0+1'+@>B' <' B1.>' % $>.<%' +<?+>'L' <0D!' 0' <' ?#$?>F#>0+' %>++>.!' @>' >0%<.=>?' 10' +@>' Q =11D' >''>C+?' % H>%E' +1' .>?#%+' '.1B' +@>' % +>.<.E' <B$ + 10' >K@ $ +>D' $E' +@>' @> .' <AA<.>0+!' 10' J@1B' +@>' >E>?' 1'' +@>' 0<+ 10' J>.>' 0<+#.<%%E' +#.0>D RT

<.+E.!' 0' 1$>D >0C>' +1' +@>' .1E<%' ?#B B10?!' 0P ?+<0+%E' .>A< .>D' +1' C1#.+!' <0D' 0' +@>' B10+@' 1'' >A+>B$>.' '1%%1J 0=!' J>' @<,>' <' %>++>.!' D<+>D' '.1B' <.<=1??<!' 0' J@ C@' @>' +@#?' ?A><H?' 1'' @ ?' ?#CC>??' Q' E' @1#?>!' <%%' D<E' %10=!' ?J<.B?' J +@' 01$%>' E1#+@?!' J@1!' .>C%< B>D' '.1B' =01$%>' A#.?# +?' +1' +@1?>' 1'' %>++>.?!' <.>' 01J' C10,0C>D' +@<+' +@>?>!' ?1' '<.' '.1B' $> 0=' <' @ 0D.<0C>!' <.>' .<+@>.' <' @>%A' 0' +@>' A.1'>?P ? 10' 1'' <.B?' ' ><.0>?+%E' 0C#%C<+>' 10' +@>B!' +@<+' C10?#B B<+>' >KC>%%>0C>' 0' <0E' D>A<.+B>0+!' J@>+@>.' 1'' J<.' 1.' A><C>!' ?' #0<++< 0<$%>' J +@1#+' ?C >0C>' +' @<?' A%><?>D' #.' .1E<%' B ?+.>??!' +@>' A<++>.0' 1''>,>.E' >K<%+>D',.+#>!' +@<+' @>.' 1J0' 0><.' H 0?B<0!' +@>' #H>' 1'' # B<.<>0?!' <?' J>%%' <?' +@>' E1#0=' #H>' 1'' %%<M

L' !' % C,' 3$' 3,' >' 4 ' %'3,1,' ' %1 1%,(%' $>' %$1' 3!5,!5,,! 5,1),' $5 '(3,'' 1)' $(,' %,)(,'%'5,(' $ ' ' 5 1$' %5 ( )' $,$ >' %55 5' '*A% 'M' A$')';2$' F$')4,,$1',4 '3 >' ,(' A' 2$)K' ,(,$5' 0' (3 ,4$',4 %, ' A),>' A',) $(,)' 0A 'C,1'');0,(' ()5$(,' $5,)5 '(1>' 4,,C!' Z' %4 %'3 % ,1' ;1)5%4%![1!'5' (%5!' 1!' ',)%' 1%')%),1%'.,$$1' 1;.,!' 3)5!'F.,!' '% '.,5'),$1'1%F,1%'($,F>' #%%'2$,>' #$,)($%')%' 1E'N !'7'9 #' 5 1' 1$,' ' 1%'),' ((($3%%' ?' 5,%!' L) ' ,, ' $'%,,' F 13$1'3%>

@>.B1?<!’ +@>’ H 0=?’ 0>A@>J!’ ?@1#%D’ .>B<0’ #0D>.’ BE’ .11’’ D#. 0=’ +@>’ J@1%>’ D<EL’ <0’ >K<BA%>’ J@ C@’ @<?’ $>>0’ B +<+>D’ $E’ +@>’ A. 0C A<%’ C<,<% >.?’ 1’’ +@>’ C1#.+!’ J@1!’ <’+>.’ <++>0D 0=’ BE’ %>C+#.>?’ 0’ C1BA<0E’ J +@’ +@> .’A. ,<+>’ +#+1.?!’ .>+ .>’ <+’ >,>0 0=’ +1’ .>, >J’ +@>B’ J +@’ +@>?>’ %<++>.’ 0’ +@> .’1J0’ F#<.+>.?R’c’

01+@>.’ +<% <0’ ?C@1%<.!’ 1’+>0’ C +>D’ <?’ <#+@1. +E’ 0’ +@>’ A.>C>D 0=’ A1.+ 10’ 1’’ +@ ?’ J1.H!’ #C 1’ <. M’ 0<>1’ C#%1!’ C11A>.<+>D’ J +@’ <.+E.’ 0’ +@>’ 0+.1P D#C+ 10’ 1’’ <’ B1.>’ % $>.<%’ ?C@1%<.?@ A’ <B10=’ +@>’ <?+ % <0’ 01$%>?’ >’ J<?’ $1.0’ <+’ >D 01’ 0’ C %EL’ <0D’ <’+>.’ C1BA%>+ 0=’@ ?’ ?+#D >?’ <+’ 1B>!’ #0D>.’ +@>’ C>%>$.<+>D’ 51BA10 1’ >+1!’ 1A>0>D’ <’ ?C@11%’ 0’ @ ?’ 0<+ ,>’ ?%<0D!’ J@>.>’ @>’ C10+ 0#>D’ +1’ +><C@’ ’1.’ ’ ,>’ E><.?’ >’ J<?’ +@>0’ 0D#C>D’ +1’ , ? +’ A< 0!’ 0’ 64 !’ J +@’ +@>’ DB .<%’ >0. F#>G!’ <0D’ ?110’ +11H’ @ ?’ A%<C>’ <B10=’ +@>’ A.1’>??1.?’ 1’’ <%<B<0C<!’ J@>.>’ @>’ ’ %%>D’ +@>’ C@< .?’ 1’’ A1>+.E’ <0D’ =.<BB<.’ J +@’ =.><+’ <AA%<#?>’ ’1.’ +J>%,>’ E><.?’ >’ J<?’ ?#$?>F#>0+%E’ +.<0?’>..>D’ +1’ +@>’ C1#.+!’ J@ C@’ @>’ @>%A>D’ +1’ %%#B 0>’ $E’ @ ?’ >KA1? + 10’ 1’’ +@>’ <0C >0+’ C%<?? C?!’ A<.+ C#%<.%E’ +@>’ <+ 0 ’’ 0D>.’ +@>’ <#?A C>?’ 1’’ +@>?>’ <0D’ 1+@>.

Q’ !’ % C ’ 3!’ 3, !’ 3!’ (F.!
0’ ’3% ,($ % ’%(($)’ 0’ %>’ ,)% K’ B , ,)’ ’ 1%C’ 4’ 0 $)5’ ,)’ ,(!’)), !’ P ,4!’ .% ’ 1!,,! 3)5!’ 3!’ H!X’ A ’1 ’ ,13 %)’ 0’ A ’ ,’ A, ’ B @’ 8’ ’ 4$ ’ 8, 3%), ’ 1 %>’ 4, ,4$ [’ 0)’ (, 5’ ,)’ A ’ *% ; , ,%)’ ,)’ A, ’ 8, C!’ ’ , ’%’ ,(A’ 3 , C’ 0’5 %, ’ 3 (; ,)’’ A ’ ’ ’%3AC’ % , ,(’%)5’ 1%)) ’ 0’ A ’3),) $ % ’B, A’%’ (3, $ ’A, ,(’%(($)’ 0’ .) ’ ,)’ 5,)%)5’%)5’ %4 %K’ ,’)!’ A ’%$ A K’,) % ,%4 ’($, ,C’ 5$,)’’ %’)’’ ,5)(’,)’ A ’ ($) C’)%4 5’A,1’ ’((’ 1%)C’0%(’ 0’ %’@,)5’ A%’ 5’) ’0% ’B, A,)’ A ’ 5,)% C’(1; 3% ’ 0’A, C’BA, ’A, ’ F); ,. ’ %),)’ ’%)5’A, ’0%1, ,% , C

I * !

>B 0>0+ ?C@1%<.?! $1+@ 0<+ ,> <0D '1.> =0! +@> E1#0= 01$ % +E 1 ' <?+ %> ?@11H 1' '+@> 0D1%>0C> 0 J @ C@ +@>E @<D ?1 %10= .#?+>D! <0D <AA% >D J +@ =>0>.1#? <.D1#. +1 +@> C#%+ ,<+ 10 1 '?C >0C>L ?1 +@<+! 0 +@> %<0=#<=> 1 ' <C10+>BA1.<.E! Q J @ %> + J <? < B1?+ .<.> 1CC#..>0C> +1 B >>+ J +@ < A>.?10 1 ' %%#?+. 1#? $.+@! $>'1.> +@> A.>?>0+ .> =0! J@1 @<D >,>0 ?+#P D >D <+ 0 0 @ ? E1#+@! +@>.> J>.> 01J +1 $> ?>>0 0#B$>.? >,>.E D<E J@1 ?1#=@+ +1 ?@>D +@> %#?+.> 1 ' %>++>.? 1,>. +@> B<.+ <% =%1.E 0@>. +>D '.1B +@> . <0C>?+1.? R T

@> >K+>0+ 1 ' +@ ? =>0>.1#? >B#%<+ 10 B<E $> =<+@>.>D '.1B +@> %<.=> C1..>?A10D>0C> $1+@ 1'

B, A 0 ,') 1 5 3 ($,% C 2$% ,0, 5 A, 1 0 ,1% ,) ' A ,) , $,) A 5 (,4 ! 1$ 4 ( )0 5 A , $00,(,) C 3% ,% A %)5 0 A, %5 3; ,)! A 5, ,) 0 5 ,) A, B @, ,)4 %(@ 3 ,) ; 5 4 0) %0 A ,)%$; A K 5 % A P A 5% 0 BA,(A , $) (%,) X ,) 6 H % (% % 5 8) % +=?$%) (%) 0 % 0%1, C) ' (4 % 5 ,) A %)) % 0 *% , ,%) 3 ,) ,) '! % ,) K 3 '$ ( )($5 B, A A 0 B,) ') 4 ,4$! U 2$ 5 4,)) $4+ (% % 0 $) % C 1$5%4 C) 3 (, > 13 1$5%) 1$(A 5$,, 3% > %)5 5 $))) 1 % 5) 5 % C AC ; ,% 2$ 0 ( ) 3% % 3 3 > $,5%5 5 1 1 ,% C 0%1%) ,1 1 % C 3 '%) C '$% > 5%) 3% % , 13 % 1 1 ,% % ,5 2$ (,4) (1 5 2$ 0 ( )![L 3$. 5% 1 (, %3! 1! 5 (%5! 1! .,! $! F.,! J ,') , * $ %) 5$,(, , 1! ,.! 3! I I! J , > %4 (A, ,% 5 % % ! % ! 1! .,,! 3% ! ,,,! ,4! ,,,! (! , .! J *0! %13, % %' ', 5 % % ! 3%')! 1! ,,! , ! ,,! (! E! J A 3% , ,(4% , ' % C (%)5% ,G 5 4C A 5 ' 0 ,)0 $)(BA,(A , %> 4 (,,%)5 A % ,%) (, ,(% (,4 A , B) %) '$%' . A *% , ,%) 3 (,% C % A, 3 , 5! A .) . $1 ,) BA,(A A A% 5, (A% ' 5 A, 4,) A A %5 0 A 00)5; %00 5 .% $%4 1% ,% 0 A A, ,%) 0 3%), A , ; % $! , %4 (A, 1$ 4 %5; 1, 5 A%. A 4 0 A, %) % '), ,) 13 ,0) ,) % '$1) !

<.+E.' <0D' <. 0<>1' J +@' +@> .' D ?C A%>?!' 0C%#D 0=' +@>' B1?+' C10? D>.<$%>' A>.?10?' 1'' +@>' <?+ % <0' C1#.+L' +' B<E' $>' ?+ %%' '#.+@>.' 0'>..>D' '.1B' +@>' 0#B>.1#?' D>D C<+ 10?' +1' +@>?>' A>.?10?' 1'' C10+>BA1.<.E' A#$P % C<+ 10?!' <++>?+ 0=' +@> .' B#0 ' C>0+' A<+.10<=>' 1''<%%' % +>.<.E' >0+>.A. ?>LT' <0D' ?+ %%' B1.>' #0>F# ,1C<%%E' '.1B' +@>' G><%' J +@' J@ C@' B<0E' 1'' +@>' @ =@>?+' .<0H' >0+>.>D' 10' ?#C@' ?>,>.>' % +>.<.E' %<$1#.' <?' '>J!' '.1B' +@>' B>.>' %1,>' 1'' %>++>.?!' <.>' '1#0D' J %% 0=' +1' <?P ?#B>' 10' #+ >..>' D>' 1%>D1!' ?10' 1''+@>' #H>' 1'' %,<!' <0D' <' C1#? 0' 1''+@>' H 0=!' +<#=@+' 0' +@>' #0 P ,>.? +E' 1'' <%<B<0C<' +' +@>' ?<B>' A%<C>!' 10' 5>D.1' >.0<0D>G' D>' >%<?C1!' ?10' 1'' +@>' 1#0+' 1'' <.1!' J@1' ?#$?>F#>0+%E' ?#CC>>D>D' @ ?' '<+@>.' 0' +@>' @>.>D +<.E' D =0 +E' 1'' .<0D' 10?+<$%>' 1'' <?+ %>!' .><D' %>C+#.>?' 10' 5% 0E' <0D' , D' 10' %'10?1' D>' <0. F#>!' ?10' 1'' +@>' 1#0+' D>' 5<.>D>?!' J<?' A.1P '>??1.' 1'' .>>H' 0' +@>' #0 ,>.? +E' 1'' %C<%<' %%' <=>?' ?>>B>D' +1' C<+C@' +@>' =>0>.1#?' >0+@#? <?BL' <0D' +@>' <.F# ?' 1'' >0 <!' <%+@1#=@' +#.0>D' 1'' ? K+E!' B<D>' <B>0D?' '1.' +@>' ? 0?' 1'' @ ?' E1#+@' $E' %><.0 0=' +@>' >%>B>0+?' 1''+@>' <+ 0' +10=#>' <+' +@ ?' %<+>' A>. 1D' 0' ?@1.+!' <?' 1, 1' .>B<.H?' 0' @ ?' >#%1= #B' 10' >$. "<!' 1' A<0 <.D' J<?' <CC1#0+>D' 01$%>' J@1' @>%D' ?C >0C>' 0' 0D ''>.>0C> R' .1B' <' ,>.E' ><.%E' A>. 1D' <' C1#.+%E' ?+<BA' J<?' BA.>??>D' 10' +@>' A1>+ C

L' 1)'' A ' B '0,)5'(3,; 5)(' 0' A '%(,., C' 0' A ' *% ; $ ' %) % ,) '0 1' A '%)(,)' , ,%)' (A % ' ,)' ,, ' 5 3% ; (% ,(' % ' * % ' 33,%)' $T' 1) !' 1!' 5 ' (%5!' 1!' .,!' % (A' 33,$ ' %$ $ ' % $ ' 33!' D ' D /! J)5 G' C3 >' , 3 '?$,) ' ,$ ' 3$,$ ' ' %3A!' 3%) % ' 33!' ! H! 8 5,%) ' %0 4 5,) '') '' .,;

% +>.<+#.>' 1'' A< 0' ' ? B %<.' C@<.<C+>.' J<?' 01J' BA<.+>D' +1' +?' >.#D + 10!' <0D' B>0' 1'' +@>' B1?+' %%#?+. 1#?' $.+@' ?>>B>D' ><=>.' +1' %><D' +@>' J<E' 0' +@>' D '' C#%+' C<.>>.' 1'' ?C >0C>!' J@ C@' J<?' +@.1J0' 1A>0' +1' +@>' 0<+ 10 T

0' +@ ?' $. %% <0+' >K@ $ + 10!' +@1?>' 1'' +@>' 1+@>.' ?>K' B#?+' 01+' $>' 1B ++>D' J@1' C10+. $#+>D' $E' +@> .' 0P +>%%>C+#<%' >0D1JB>0+?' +1' +@>' =>0>.<%' %%#B 0<+ 10' 1'' +@>' A>. 1D' B10=' +@>B' +@>' J. +>.?' 1'' +@<+' D<E' %<, ?@' +@> .' A<0>=E. C?' 10' +@>' <.C@ 10>??' D>' 10M' +><=#D1!' <0D' 10<' <. <' 5<C@>C1!' 1'' +@>' <0C >0+' @1#?>!' 1'' >0D1G<!' ? ?+>.?' 1'' +@>' @ ?+1. <0!' 10' >=1' #.+<D1"'' D<#=@+>.?' 1'' +@>' <CC1BA% ?@>D' 1#0+!' D>' >0D %%<!L3L' J@1!' J@ %>' <B$<??<D1.' <+' 1B>!' 0D#C>D' <.+E.' +1' , ?+' A< 0!' <0D' J@1' J<?' =.<0D?10' 1'' +@>' '<B1#?' <.F# ?' 1'' <0+ %%<0<!' <0D

L' % %G% ' 5 ')5 G% ' ,'>),5%5 ' 5 ' *% , % ' (!FF,! $(, ' % ,) ' ,($ ' ,)' A, ' 5, ($ ' %4 . ' % $5 5' ' ,)' BA,(A' A ' FA,4, ' A ' ( )5, ,)' 0' ' $)5 ' A ' ,')' 0' ; 5,)%)5' %)5' %4 % ')$1 % ' A ')%1 ' 0' A ') 4, , C' 1 ' ( ) 3,($ $ ' 0 ' A , ' (A % A,3!' A, ' .% $%4 ' 5 ($1) ' B% ' ' 4 ' 0 $)5') C' ,)' A ' 5, ,)' 0' % ,) K' B @' ' 4$ ' 8, >' 3%), ' 1 %4, ,4$ ' 3 ,) 5'% ' (% %',)' 'BA)(', 'A% '4)' %) 0 5' 4C' * 1)(,)' ' A ' ,F A' . $1 ' 0' A ' 1 , ' 0' A ' C%' (%5 1C' 0' 8, C! ' 8, ' B @' Y' : $ %' 5 ' : %;)%5%' ( ) %' ' , ([' B% ' 0, '3$4 , A 5'% ' %5 ,5',)'

%)5' 8 1%C' 4 ' (13% 5Z %C ' ,(!)), ' ,)' %' +$5' 1) ' BA,(A' A% ' 4)' % ,0, 5' 4C' A ' ') % ' ( ) ' 0' A, ' ($) C; 1) ' Y' B, A' A ' (13 , ,) ' 0' % $ ' '%)C' A '%)(,) ' A, ,%)![' 8, ' 3 C' %)5' A, ' (4 % 5'> #&! ') . ' %G%>' , ' 5 ' 1 ' A%. ' 1%5 '%)' 3 (A' ,)' A ')%1) % ' , %; $ ' 0' 3%,)!

?' ., 5 ' A% ' 5 .O 5') ' 0' A, ' 5,% '$ ' ' A, ') 4 1%)' 2$% C' 5, ,) '$, A 5' 4C' A, ' $(; (',5' % 1 ' '%)5' . < A ' % ' 0' BA,(A' %((5,)'' ' A% ' B , ' A ' A%5') ') , C' ,') 5' % ' A '%' ' 0' .) C! J' % ! ' 2$,)(! ! 5,% ' I ' !

0>A@>J' 1'' +@>' =.<0D' C<.D 0<%T' @ ?' %%#?+. 1#?' '<B %E!' .>0D>.>D' E>+' B1.>' %%#?+. 1#?' $E' +?' B>. +?' +@<0' +?' $.+@!' ?' J1.+@E' 1'' ?A>C ' C<+ 10!' <?' <''1.D 0=' <%+1=>+@>.' +@>' B1?+' $. %% <0+' C1B$ 0<+ 10' 1'' % +>.<.E' +<%>0+' 0' +@>' >0% =@+>0>D' C1#.+' 1'' <?+ %>' @>' F#>>0 ?' 0?+.#C+1.' 0' +@>' <+ 0' %<0=#<=>' J<?' <' %<DE' 0<B>D' 10<' ><+. G' D>' <% 0D1!' C<%%>D' '.1B' @>.' A>C#% <.' <++< 0B>0+?' ' 5 ' 01+@>.' %<DE' 10<' #C <' D>' >D.<01!' A#$% C%E' %>C+#.>D' 10' +@>' <+ 0' C%<?? C?' 0' +@>' #0 ,>.? +E' 1'' <%<B<0C<' 0D' <01+@>.' 10<' .<0C ?C<' D>' >$. "<!' D<#=@+>.' 1'' +@>' @ ?+1. <0' 1'' +@<+' 0<B>!' ' %%>D' +@>' C@< .' 1'' .@>P +1. C' J +@' <AA%<#?>' <+' %C<%<' #+' 1#.' % B +?' J %%' 01+' <%%1J' <' '#.+@>.' >0#B>.<+ 10' 1'' 0<B>?!' J@ C@' ?@1#%D' 0>,>.' $>' A>.B ++>D' +1' ? 0H' 0+1' 1%U, 10!' J>.>' +' 10%E' '1.' +@>' .<.>' ?C@1%<.?@ A!' A>C#% <.%E' .<.>' 0' +@>' '>B<%>' ?>K!' J@ C@' +@>E' D ?A%<E>D' 0' <0' <=>' C1BA<.<+ ,>%E' #0>0% =@+>0>D '' >B<%>' >D#C<M

L' ' %)' %(($)' 0' %) , >' 5'B, A' 1$(A' (% ' A ' ,) (; %)%' ' A ' 0, ' (A%3 ' 0' A, ' $%' ($ $ ' 0' A ')% ,)', 15 ' 8, C!' A ' (% 5,)%' ,)' % C' %4 %' ,)' A ' ,F) A' 0 "&2' ,0 ', ' %,5' 'A%. ' %) % 5'0 ' ! ' 0' A, ' B @!L' 8 ' A%' A, ' 0% A ' A) ,5 ' A ' 5C ; $(A 5' ,'A C')', ' 3 ,(%' C' .,5' E% ,$' %F,1$' (A% %(' ( ) ,5 ,)'') ' 5 $4' %)5' % $!' P 1!' 5' (%5' A% ', A' A%5' 4)' $00,(,) C' 1!' .,!' $!' F.,!X A, ' 8 ; 5 . 3 5'4C' A ' (, ,(!' 8, ' ($ %)' 0 %' +. $5' 3$' 1 5 1' %C' A B . ' , ' 3 ,0,(0' ,); (A 4 C' ' A%1 '%)5'B ' 1%C' 0 1%,)',)' '% 5' ' A ' (A ; $33 ' 3% ,%' . ,) ') C' 0' % A,3'%)5' . ' $5, ' 0' A ' A ' %$ A ' B ' ,))5 5! 3 , 5!' A ' %5 'BA ' B $5' ' ' 1!' 5 ' %' L%' (%5' 3$ $ ' A ' ,)2$, C' , ' 0$ A ' 5 ' 8, ! 1!' .,!' $!' F.,! J' 1%C' 0,)5' %4$)5%) ' 1% ,% ' ,)' ., 5 '#$,)($%')% ' !' 5,% ' ,(!')), ' ,4, A!' E $ ' 5 ' : ,G, ! 1!' ,,!' ,4!' F!' (!' F,,,!' ' 2!! J' 0, ' * 1)(,)' A% ' F%1,); ,4, A!' .%' 1!',!' ,,!' 3% ,1!

□ * ' !

+ 10' 0' +@<+' D<E' >B$.<C>D' <' J D>.' C1BA<??' 1'' >.#P
D + 10!' <+' %><?+' 0' .>'>.>0C>' +1' +@>' <0C >0+' %<0=#<=>?!'
+@<0' ?' C1B B10' <+' A.>?>0+!' <' C .C#B?+<0C>' BA#P
+<$%>' A.1$<$%E' +1' +@>' A1,>.+E' 1'' B1D>.0' % +>.<+#.>!'
<0D' +@>' 0>J' <0D' =>0>.<%' <AA>+ +>' >KC +>D' $E' +@>'
.>, ,<%' 1'' C%<?? C<%' %><.0 0=' 0' +<%E' ' <B' 01+'
<J<.>' @1J>,>.' +@<+' +' J<?' #?#<%' '1.' %><.0>D' %<D >?'
0' <0E' 1+@>.' C1#0+.E' +@<0' A< 0' +1' +<H>' A<.+' 0'
+@>' A#$% C' >K>.C ?>?' 1'' +@>' =EB0<? #B!' <0D' D>% ,>.'
%>C+#.>?' '.1B' +@>' C@< .?' 1'' +@>' #0 ,>.? + >?' @ ?'
A>C#% <. +E!' J@ C@' B<E' $>' .>'>..>D' 0' A<.+' +1' +@>'
F#>>0 ?' 0'%#>0C>!' J@1' >0C1#.<=>D' +@>' %1,>' 1'' ?+#DE'
$E' @>.' 1J0' >K<BA%>!' <?' J>%%' <?' $E' A>.?10<%' <++>0DP
<0C>' 10' +@>' <C<D>B C' >K<B 0<+ 10?!' B<E' @<,>' $>>0'
<%?1' ?#==>?+>D' $E' <' ? B %<.' #?<=>!' <%.><DE' 01+ C>D!'
<0J0=' +@>' A<0 ?@' .<$? T

@ %>' +@>' ?+#DE' 1'' +@>' <0C >0+' +10=#>?' C<B>' +@#?'
0+1' '<?@ 10' J +@' A>.?10?' 1'' $1+@' ?>K>?!' <0D' 1'' +@>'
@ =@>?+' .<0H!' +' J<?' J D>%E' <0D' B1?+' +@1.1#=@%E'
C#%+ ,<+>D' $E' A.1'>??>D' ?C@1%<.?' >0' 1'' %>++>.?!'
?1B>' 1'' J@1B' @<,>' $>>0' <%.><DE' 01+ C>D!' J>.>' 0P
, +>D' 0+1' A< 0' '.1B' +<%E!' +@>' +@><+.>!' <+ @<+' + B>!'
10' J@ C@!' '.1B' 1$, 1#?' %1C<%' <D,<0+<=>?!' C%<?? C<%'
D ?C1,>.ET' J<?' A#.?#>D' J +@' =.><+>?+' <.D1#.' <0D'
?#CC>??' 1' +@ ?' C1#0+.E' +' J<?' #?#<%' <%?1' '1.' +@>'
A<0 ?@' ?+#D>0+?' +1' .>A< .!' 0' 1.D>.' +1' C1BA%>+>'
+@> .' D ?C A% 0>' 0' C%<?? C<%' % +>.<+#.>!' >?A>C <%%E' +@>'
.>>H!' <?' ' .?+' +<#=@+' 10' ?1#0D' A. 0C A%>?' 1'' C. + P
C ?B' $E' +@>' %><.0>D' >K %>?' '.1B' 10?+<0+ 01A%>' @>

T' >>' 5<.+' 'C@<A', '1'+@ ?' ?+1.E

B1?+‘ .>B<.H<$%>‘ 1’‘ +@>‘ A<0 ?@‘ ?C@1%<.?!‘ J@1‘ B<D>‘ +@ ?‘ % +>.<.E‘ A %=. B<=>‘ +1‘ +<%E!‘ J<?‘ 0+10 1‘ D>‘ >$. "<!‘ 1.‘ >$. ??>0? ?!‘ <?‘ @>‘ ?‘ B1.>‘ '.>F#>0+%E‘ C<%%>D‘ '.1B‘ @ ?‘ <+ 0‘ 0<B> T‘ '+>.‘ +>0‘ E><.?‘ A<??>D‘ <+‘ 1%1=0<‘ <0D‘ 1+@>.‘ ?>B 0<. >?‘ 1’‘ .>A#+>!‘ J +@‘ A<.P + C#%<.‘ <++>0+ 10‘ +1‘ +@> .‘ 0+>. 1.‘ D ?C A% 0>!‘ @>‘ .>P +#.0>D!‘ 0‘ 69 !‘ +1‘ @ ?‘ 0<+ ,>‘ %<0D!‘ . C@%E‘ %<D>0‘ J +@!‘ +@>‘ ?+1.>?‘ 1’‘ ,<. 1#?‘ >.#D + 10‘ >‘ J<?‘ 0P , +>D‘ +1‘ ' %%‘ +@>‘ <+ 0‘ C@< .‘ <+‘ >, %%>!‘ J@>0C>‘ @>‘ J<?‘ ?#CC>?? ,>%E‘ +.<0?'>..>D‘ +1‘ <%<B<0C<‘ <0D‘ %P C<%<!‘ $1+@‘ 1’‘ J@ C@‘ A%<C>?‘ @>‘ %10=‘ C10+ 0#>D‘ +1‘ >0% =@+>0‘ $E‘ @ ?‘ 1.<%‘ 0?+.#C+ 10‘ <0D‘ A#$% C<+ 10?‘ @>‘ ><.% >?+‘ 1’‘ +@>?>‘ J<?‘ @ ?‘ 2 ‘ 5 1‘ /‘ J@1?>‘ +@ D‘ >D + 10‘ J<?‘ A. 0+>D‘ 0‘ 648!‘ $> 0=‘ '1#.‘ E><.?‘ 10%E‘ '.1B!‘ +@>‘ D<+>‘ 1’‘ +@>‘ ' .?+L‘ <‘ .>B<.H<$%>‘ >, D>0C>‘ 1’‘ +@>‘ =.1J 0=‘ +<?+>‘ '1.‘ C%<?P ? C<%‘ %><.< 0=‘ ‘ +.<0?%<+ 10‘ 0‘ +@>‘ ,>.0<C#%<.‘ <CP C1BA<0 >D‘ +@>‘ %<++>.‘ >D + 10!‘ <..<0=>D‘ <+‘ +@>‘ F#>>0 ?‘ ?#==>?+ 10‘ 0‘ C1%#B0?‘ A<.<%%>%‘ J +@‘ +@1?>‘ 1’‘ +@>‘ 1. = 0<%‘ +>K+L‘ <‘ '1.B‘ J@ C@!‘ ? 0C>‘ $>C1B>‘ C1B B10!‘ J<?‘ +@>0‘ <‘ 01,>%+E M"M‘ @>‘ A#$% C<+ 10‘ 1’‘ @ ?‘ <?P + % <0‘ =.<B B<.!‘ ‘ 6 ‘ * 7‘ '1%%1J>D‘ 0‘ 6:7L‘ <‘ +.><+ ?>‘ D>? =0>D‘ A<.+ C#%<.%E‘ '1.‘ +@>‘ 0?+.#C+ 10‘ 1’‘ +@>‘ %<D >?‘ 1’‘ +@>‘ C1#.+‘ @>‘ 1+@>.‘ A.1D#C+ 10?‘ 1’‘ +@ ?‘ 0D>'<+ =<$%>‘ ?C@1%<.‘ >B$.<C>‘ <

L‘ ‘%‘) ,(‘ 0‘ A, ‘ (A %‘ ‘ A ‘ 3 (,3‘ ‘ % ‘,!‘ (A%3‘ F,!‘ 0‘ A, ‘ 8, C! ‘)5 G‘ C3 ' %3A!‘ 3%>‘ ,, %‘ 33!‘ / ‘ / !)‘ A ‘ ( )5‘ 5, ,)‘ 3$4;

, A 5‘ DI ‘ A ‘ %$ A ‘ % ‘ A%‘) ‘ B @‘ 0‘ A ‘ ,1 ‘ A%5‘ %‘ ' % ‘(, ($% ,)‘ 1 ‘ A%)‘ %‘ A $ %)5‘ (3, ‘ 0‘ , ‘ % ‘ %‘ A,'A‘ 3 ,(‘ A%.,)'‘ 4)‘ 5, 3 5‘ 0‘ A ‘ 3 (5,)'‘ C % !‘ 4,5!‘ 3!‘ /!

%<.=>' C .C%>' 1'' +1A C?!' 0D>A>0D>0+%E' 1'' @ ?' ,<. 1#?' +.><+ ?>?' 10' A@ %1%1=E' <0D' C. + C ?B ' 1B>' J>.>' +.<0?P %<+>D' 0+1' .>0C@' <0D' +<% <0!' <0D' +@> .' .>A#$% C<+ 10' @<?' $>>0' C10+ 0#>D' +1' +@>' %<?+' C>0+#.E ' 1' B<0' 1'' @ ?' 1J0!' 1.' 1''%<+>.' + B>?!' C10+. $#+>D' B1.>' >??>0P + <%%E' +@<0' >$. "<' +1' +@>' 0+.1D#C+ 10' 1'' <' A#.>' <0D' @><%+@'#%' >.#D + 10' 0+1' A< 0 ' +' ?' 01+' +11' B#C@' +1' ?<E!' +@<+' +@>.>' J<?' ?C<.C>%E' <0' >B 0>0+' A<0 ?@' ?C@1%<.' 0' +@>' $>= 00 0=' 1'' +@>' ? K+>>0+@' C>0+#.E' J@1' @<D' 01+' '1.B>D' @ B?>%'' 10' +@>' 0?+.#C+ 10?' 1'' +@ ?' B<?+>. T

01+@>.' 0<B>' J1.+@E' 1''C1B B>B1.<+ 10' ?' +@<+' 1'' . <?' <.$1?<!' <' %><.0>D' 51.+#=#>?>!' J@1!' <'+>.' A<?? 0=' ?1B>' E><.?' % H>' >$. "<' 0' +@>' ?C@11%?' 1'' +<%E!' J@>.>' @>' ?+#D >D' +@>' <0C >0+' +10=#>?' #0D>.' +@>' =# D<0C>' 1'' 51% + <01!' J<?' 0D#C>D' +1' >?+<$% ?@'X @ ?' .>? D>0C>' 0' A< 0 ' 0' 64:' J>' ' 0D' @ B' <+' <%<B<0C<!' J@>.>' @>' C10+ 0#>D' '1.' +J>0+E!' 1.!' <CM

L' ,(!')), ' ,4!' 8, 3!' ,5 [' %C ' : 1% ' 5 ' *% ' 0' .!' 1!' ,!' 33!' J H! J ' 4 ,F% Z' ' 1$ 5' 1%+ %' A >' %13, % ' % $ %' 3%')$ >' 1,), ' $5, , ' ($,' 8, 3%),%' 5 ; %' 1!',,!' , !',,!' (!',,,! J ,%>' 4 ' 2$,(2$,5' A%4 ' 4)% $1' ,>' ' ' 5 ' % ')'$% ' 33!' D D/!' % $1![J $(, ' %,) ' 3%C ' A '0 ; A ' %$ A ' 0' A ' %>' B,)'' '%)' (13,1)' ' ' ' 5' %')'$% ' BA, ' A ' A, ' %) 5' 3%),% 5',)' A, ' 5, ;)5 '%13 ' A 1%' ' ' 4 ,>' ($ '4 0 ' 2$ 5!' Y' 1, ,' +%K' %,)' $5, ,)' 5, 3$ ' A, ')$3 ' 8,T%),%' 1%F,1$1' $,' (, ,(%' %(2$%,) %)(' B, A' A, ' ($ 1' ,)' ' , %,%') >' B)' %)'$%' '0 1' A, ' 4 ,)'' %'),$1' 4 ,) 1 ' 2$,' 3 ,1$')%,. ' 0')5% $,%' BA ' A ' F' % ,5' ,)' 8, 3%),%1' $ %' *% , ,%)' B% ') ' 3 @)' B, A' %55$F, ' 2$,4$ ($1' 4% 4% , 1' 3$, C!' 8' 8%4 %4%' C' (,.,%' F' $5' 3% ,5' 0$'%., ' ' 8, 3%; (1 ')' ')5% $(,%C') ' (1 '),%1' %1' ,)'$%' %,)%' (,>')' %' *% , % [' 3!' 0 ' ' % '),4$', $ %., ![' 8' $ % 33!' H' !' D !6 !

C1.D 0=' +1' ?1B>' <CC1#0+?!' '1.+E' E><.?!' +><C@ 0=' 0' +@>' D>A<.+B>0+?' 1'' .>>H' <0D' .@>+1. C' +' +@>' C%1?>' 1'' +@<+' A>. 1D' @>' .>+#.0>D' +1' 51.+#=<%!' J@>.>' @>' ?#A>. 0+>0D>D' +@>' >D#C<+ 10' 1'' ?1B>' 1'' +@>' B>B$>.?' 1'' +@>' .1E<%' '<B %E!' <0D' ?#., ,>D' +1' <' =11D' 1%D' <=>' <.$1?<' J<?' >?+>>B>D' 0'>. 1.' +1' >$. "<' 0' >K+>0+' 1'',<. 1#?' >.#D + 10!' @#+' +1' @<,>' ?#.A<??>D' @ B' 0'<0' <CC#.<+>' H01J%>D=>' 1'' +@>' .>>H!' <0D' A1>+ C<%' C. M' + C ?B' 0' +@>' '1.B>.!' 0D>>D!' @>' ?>>B?' +1' @<,>' 1$+< 0>D' =.><+>.' .>A#+>' +@<0' <0E' A<0 ?@' ?C@1%<.' 1'' +@>' + B>' >' C1BA1?>D' ?1B>' ,<%#<$%>' J1.H?!' >?A>P C <%%E' 10' <0C >0+' A.1?1DE' @>' #0J><. >D' <?? D# +E' <0D' C1BA%>+>' ?#CC>??' 1'' @ ?' <C<D>B C' %<$1#.?' @<,>' ?>C#.>D' @ B' <' @ =@' .>A#+<+ 10' <B10=' +@>' .>?+1.>.?' 1''<0C >0+' %><.0 0=!' <0D' >?A>C <%%E' +@<+' 1'' .>, , 0=' <' % ,>% >.' .>% ?@' '1.' +@>' ?+#DE' 1'' +@>' .>>H' $E' C10D#C+P 0=' +' 10' A. 0C A%>?' 1'' A#.>' C. + C ?B!' 0' +@>' ?<B>' B<00>.' <?' >$. "<' D D' J +@' +@>' <+ 0 T

@>' ?C1A>' 1'' +@>' A.>?>0+' J1.H' A.>C%#D>?' +@>' A1?P ? $ % +E' 1'' <' C1A 1#?' >0#B>.<+ 10' 1'' +@>' A 10>>.?' 1'' <0C >0+' %><.0 0=!' +1' J@1B' A< 0' 1J>?' ?1' %<.=>' <' D>$+' 1'' =.<+ +#D> '' @>' <?+ % <0' ?C@1%<.?' 1'' +@>

Q' %4 %' ,4, A(% $,' % C'5 .,)'' 0'%),)' A' %)%' 1!',!33!/ J/I!J ,';' 4 A '?A)' %)5' %)(,'E ;) ,' * $%) '5$',(,,' '%%' 3 0 '%' (%%' A' 1!',.!33! 6J !J' %; % ' 0'BA 1' B%' 1 5' C%)'C, (%' ,'!5 %)'$%')' 0' A' 1 '%((13, A 5' 3%) ! 1,!3! /!J %%>' (A %' 0' A'%' $)G5' 3, %' %!3%')! 1!,,! :$G1%)' 0' A'%)(,)' A $' 0' ,!,,! ('.bb ,(!), A%')%1 '3 0 '0 '1%)C' ,4!8, 3! .! 1!,!33!/ ' C %'%' %%1%)(%%)5' (%%' /! %)5' A'%$A' 0' A' %,)' 0' 1)'' A '%' 3% ,($' . ,)' ,)' A'0%1 $'3 C'

E ! !

C%1?>' 1'' +@>' ' '+>>0+@!' <0D' +@>' $>= 00 0=' 1'' +@>' ? KP +>>0+@' C>0+#.E!' B<E' +<H>' .<0H' J +@' +@> .' %%#?+. 1#?' C10+>BA1.<. >?' 1'' +<%E ' @>E' C1#%D' 01+' 0D>>D' <C@ >,>' ?#C@' $. %% <0+' .>?#%+?' 0' +@>' D ?C1,>.E' 1'' +@>' .>B< 0?' 1''<0+ F# +E!' '1.' ?#C@' .>B< 0?' @<D' $>>0' %10=' ? 0C>' ?C<++>.>D' <0D' %1?+' <B D' +@>' C>0+#. >?' 1'' >K %>' <0D' D ?<?+.1#?' J<.'<.>' C10?>F#>0+' 10' +@>' <.<C>0' 0,<? 10 ' #+' +@>E' J>.>' #0J><. >D' 0' +@> .' %%#?+.<P + 10?!' $1+@' 1.<%' <0D' J . ++>0!' 1''+@>' @0C >0+' <#+@1.?'" <0D' +@> .' 0#B>.1#?' C1BB>0+<. >?!' +.<0?%<+ 10?!' D CP + 10<. >?!' =.<BB<.?!' <0D' ,<. 1#?' J1.H?' 1''C. + C ?B!' B<0E' 1'' J@ C@!' +@1#=@' 01J' 1$?1%>+>!' A<??>D' 0+1' .>A><+>D' >D + 10?' 0' +@> .' 1J0' D<E!' $><.' <BA%>' +>?+ P B10E' +1' +@>' =>0>.1#?' G><%' J +@' J@ C@' +@>E' C10?A .>D' +1' .< ?>' +@> .' C10+>BA1.<. >?' +1 <' A.1A>.' %>,>%' '1.' C10+>BA%<+ 0=' +@>' J1.H?' 1''+@>' =.><+' B<?+>.?' 1'' <0P + F# +E' L' <0D' J>%%' >0+ +%>D' +@>B' +1' +@>' @ =@' >#%1= #B' 1'' .<?B#?!' +@<+' Q' % $>.<%' ?+#D >?' J>.>' $.1#=@+!' 0' +@>' C1#.?>' 1''<' '>J' E><.?!' 0' A< 0' +1' ?1' '%1#. ?@ 0=' <

0'*% 5,)%'=,1) <'A' 0'4 ; %),) '![' $' A' 1 ' $) ; A,)5' A,1')$1 $'B @' ; 2$,. (%' ,1)C' ' A' 5 3' 3 (,% C' (11)%, ')' A' %)5' .%, $' (A % A,3' 0' A' (% ,(' ,.%, ' BA ' ($, $' 3 , 5', '%00 5 5' 4C' A%' $; $5, ,)' B%' %4$)5%) C' FA,; 3)5 $' , % C'B @' 0'*% 5,; 4, 5',)' A,' , $ %,) ' 0' *,;)%'=,1) ' A'3 C' ' ,4 ' (' %)5' A ' %,)' %$ A ' BA '. ,)',)' A' : @' %; %)5' % C' E,. ' BA ' 0%1 ' ,) ' %)5' ,) %')'$ ' B%' % A '4)' ' ' $ 3' A%)' A,T' F ($ 5' B, A' %' ,)' ' F(3; B)' ($) C' BA' BA)') C' ,) ' 4C' 3%), A' (A % !' ' B) C> ,F' C % ' 5'5 B'0 1' % 1$' A')(1,$1' A%' % 1$' A' 1$' 3, ' ,4!' F,F!' 3!' Y' A ' B%' (% (C'%)C') ' 0' (,! J %13, % ' %'', ' ,(>' A '%' ' BA 1' A ' ($5' .) $ ' 3 ' ,(' 1!' ,,!' 33' E J' ' (13% ' B, A' A,1' ,)' 3A, ; I D!DH6!/H J /HD<' 1!' ,,!' 3!' 3AC' 2$)(' %)5' ,4 % I ' ' 2! J '.% $': 1 (,$ ' >' >$#?': , '=,1),,'0 ! /!

C10D + 10! <? B =@+ 01+ 10%E >KC +> +@> <DB .<+ 10! $#+ ?>. ,> <? < B1D>% +1 +@> B1?+ C#%+ ,<+>D 0<+ 10? 1 ' #.1A> RT

@> A<0 ?@ #0 ,>.? + >? J>.> +@> +@><+.> 10 J@ C@ +@ ? C%<?? C<% >.#D + 10 J<? B1?+ J D>%E D ?P A%<E>D 5.>, 1#? +1 ?<$>%%< ? .> =0 +@>.> J>.> $#+ '>J ?C@11%? 0 +@> H 0=D1B! 01+ 10> 0D>>D 1 '<0E 01+1U >KC>A+ 0 <%<B<0C<L <0D +@ ? D D 01+ >?C<A> +@> $% =@+ J@ C@ '>%% 10 >,>.E =>0>.1#? ?+#DE $#+! #0D>. +@> C@>>. 0= A<+.10<=> 1 '+@> A.>?>0+ =1,>.0P B>0+! +@>E J>.> ?110 ' %%>D <0D J D>%E B#%+ A% >D C<D>B >? 1 ' .>A#+> J>.> +1 $> '1#0D 0 >, %%>! 1%>D1! <%<B<0C<! .<0<D<! <0D %C<%< CC1BP A% ?@>D +><C@>.? J>.> D.<J0 '.1B <$.1<D! <? J> @<,> ?>>0! $E +@> B1?+ % $>.<% >B1%#B>0+? +@> @><D 1 '+@>?> >?+<$% ?@B>0+? ?+11D W +@> %%#?+. 1#? C +E 1 ' <%<B<0C<!R <? <. 0<>1 '10D%E +>. B? @>.! Q B1+@>. 1 '<%% % $>.<% <.+? <0D , .+#>! <% H> .>01J0>D '1. 01$%> C<,<% >.? <0D %><.0>D B>0 R' #C@ J<? +? .>A#+<P + 10! +@<+ '1.> =0>.? <? J>%% <? 0<+ ,>? J>.> <++.<C+>D +1 +? ?C@11%?L <0D <+ 10> + B>! <CC1.D 0= +1 +@> <#+@1. +E 1 '+@> ?<B> A.1'>??1.! ?>,>0 +@1#?<0D ?+#P D>0+? J>.> <??>B$%>D J +@ 0 +? J<%%? ' %>++>. 1 ' 5>+>. <.+E. +1 @ ? A<+.10 +@> 1#0+ 1 ' >0D %%<! = ,>? < J@ B? C<% A C+#.> 1 '+@> % +>.<.E >0+@#? <?B

% 1$ 3, 3! H//< 5 (%.% (1 5 %5 5!)5,), D ! .%) 1$C , $![* % 1 %4 0 ! ! J *A%( )]Z %1$C (% (,5%(,$5%5 8, 5 % ,5%5 5 % %; 5 % %1%)(% 1%5 5 % % 1%)(% 3! 1%)% , $5, ,4 % C 5% ., $5 C%) , 1! F.,,,! 33! J

1’‘ +@ ?‘ A‰<C>‘ @>‘ +@.10=‘ J<?‘ ?1‘ =.><+‘ +1‘ @><.‘ @ ?‘ 0+.1D#C+1.E‘ ‰>C+#.>‘ 10‘ 10>‘ 1’‘ +@>‘ ?<+ .>?‘ 1’‘ /#,>0<‰‘ +@<+‘ >,>.E‘ <,>0#>‘ +1‘ +@>‘ @<‰‘ J<?‘ $%1CH<D>D‘ <0D‘ +@>‘ A.1’>??1.‘ J<?‘ $1.0>‘ 0‘ 10‘ +@>‘ ?@1#‰D>.?‘ 1’‘ +@>‘ ?+#D>0+?‘ 5.1U??1.?@ A?‘ 0‘ >,>.E‘ D>A<.+B>0+‘ 1’‘ ?C >0C>‘ +@>0‘ ?+#D >D!‘ <?‘ J>‰‘ <?‘ 1’‘ A1% +>‘ %>++>.?!‘ J>.>‘ >?+<$% ?@>D‘ <+‘ +@>‘ #0 ,>.? +E!‘+@>‘ Q‘0>J‘ +@>0?!R‘ <?‘ <.+E.‘ ?1B>J@>.>‘ ?+E%>?‘ +‘ >’1.>‘ +@>‘ C%1?>‘ 1’‘ ?<$>‰‘< ?‘ .> =0!‘ @1J>,>.!‘ +?‘ =%1. >?‘ J>.>‘ . ,<‰‘>D!‘ ’‘ 01+‘ >C% A?>D!‘ $E‘ +@1?>‘ 1’‘ %C<%<‘ LT‘ J@ C@‘ C1B$ 0>D‘ @ =@>.‘ <D,<0+<=>?‘ ’1.‘ >CC%>? <?+ C<‰‘ J +@‘ C , ‰‘ >D#C<P + 10!‘ <0D‘ J@ C@‘ #0D>.‘ +@>‘ ?A%>0D D‘ A<+.10<=>‘ 1’‘ <.D 0<‰‘ ; B>0>?‘ >K>C#+>D‘ +@>‘ ’<B1#?‘ A1%E=%1+‘ ,>.P ? 10‘ 1’‘ +@>‘ C. A+#.>?!‘ +@>‘ B1?+‘ ?+#A>0D1#?‘ % +>.<.E‘ >0+>.A. ?>‘ 1’‘+@<+‘ <=> R’

@ ?‘<C+ ,>‘C#%+ ,<+ 10‘ J<?‘ 01+‘ C10’ 0>D‘+1‘+@>‘ D><D‘ %<0=#<=>?!‘ $#+‘ ?A.><D‘ B1.>‘ 1.‘ %>??‘ 1,>.‘ >,>.E‘ D>A<.+P B>0+‘ 1’‘ H01J%>D=>‘ @>1%1= C<‰‘ ?C >0C>!‘ 0‘ A<.+ M

L‘Y‘ (%5 1,%‘ * 13$) , 7‰‘ %C‘ % 1$‘ 0‘A, ‘$),. , C‘ Y‘))‘% ,$)5‘ (4,% 1‘) ; 1,),‘ %$ 3,(%‘%‘ ‘ 2$%‘%‘ %‘ (13 ( )5‘ ,)‘$%‘ %‘(‘4)%‘ , % !‘ *$+$‘3 (,3$$1‘ 1%>‘ 1) $1‘ ‘, ‘ ’ ’,$‘) F‘ 3%) 2$‘5,’)$‘2$,‘1$ ‘.,)>‘ (%‘ % ‘)),$‘ 4,>‘) , ![‘ 3, !‘%5‘ $5 .,($1‘ E,. 1‘ 6 ‘3!‘/66<‘ 5!‘ D ! ‘ * %‘ 1 %4 ‘$4,‘ $; 3%! J !‘ % C‘ 3$‘ 3,>‘ % $1‘ 3!‘ .,,! J .%$‘ : >‘ 1 (,$‘ ‘ 4$‘ : ,‘=,1 >‘),,‘ ,4!‘,.! J *A%( )‘),. ,>‘ 5%5‘5‘ % %1%)(%‘$4,‘ $3 %!

‘%33 % ‘ A%‘A‘3 %(,(‘ 0‘ (%3,)’‘B, A‘A‘0 ‘%‘%)‘ F; 3 ,)‘ 0‘5, %33 4%,)‘0%1,; ,%‘,)‘ $‘$),. , , ‘, 0‘. ;) %4 ‘ %) ,2$, C‘ 0 ‘ % C‘ Q1) ,)‘ A%‘A‘B%‘ %$ 5‘ B, A‘, ‘4 0 ‘0,), A,)’‘A, ‘5, ; ($ ‘4C‘) ‘ ‘B ‘,5 ‘C $A‘ 5, %, 0, 5‘B, A‘, ‘) ‘A!‘ A‘ (,1 ‘A B . ‘ 1‘ ‘A%. ‘ ’,.)‘’) %‘ %, 0%(,)‘0 ‘A‘ B%‘ (5‘4%(@‘,)‘ ,$13A‘ ‘ ,, ‘ 5’,)’‘ ‘$ ‘A, ‘ B)‘ %); ’$%’‘ Y ,@‘ %‘ .,(‘,)‘ A‘ C13,(‘ ’%1 [‘%0 ‘A‘( ); ($,)‘ 0‘A‘F (, !

C#%<.L' .>C> ,>D' <' %<.=>' ?@<.>' 1'' <++>0+ 10 ' +' @<D'
<%J<E?' '1. B>D' <' A. 0C A<%1$">C+' 1'' <C<D>B C' 0?+.#CP
+ 10!' <%+@1#=@' +' @<D' $>>0' ?#''>.>D' +1' %<0=# ?@' #0D>.'
+@>' #0 ,>.?<% C1..#A+ 10' 1'' +@>' A.>C>D 0=' .> =0 ' +'
J<?' ?1' C1B B10' '1.' +@>' C%>.=E' +1' $>' =01.<0+' 1''+@>'
B1?+' >%>B>0+<.E' H01J%>D=>!' +@<+' +@>' C1#0C %' 1''
.<0D<' '1#0D' +' 0>C>??<.E' +1' A<??' <0' 1.D 0<0C>!' +@>'
E><.'$>'1.>' ?<$>%%< ?' <CC>?? 10!'+@<+' 01' A>.?10' ?@1#%D'
$>' <DB ++>D' +1' 1.D>.?' J@1' J<?' =01.<0+' 1'' <+ 0 '
@>' F#>>0' +11H' +@>' B1?+' >''>C+#<%' B><0?' '1.' C1.P
.>C+ 0=' +@ ?' <$#?>!' $E' .< ? 0=' C1B A>+>0+' A>.?10?' 10%E'
+1' >CC%>? <?+ C<%' D =0 + >?' @>' @ =@>?+' ?+<+ 10?' 0'
+@>' C@#.C@' J>.>' .>?>.,>D' '1.' +@1?>' J@1' C1B$ 0>D'
+@>' @ =@>?+' 0+>%%>C+#<%' >0D1J B>0+?' J +@' #0$%>B ?@P
>D' A >+E ' <.D 0<%' >0D1G<!' J@1?>' <C#+>' <0D' C1B P
A.>@>0? ,>' B 0D' >0+>.>D' J +@' 0+>.>?+' 0+1' >,>.E'
?C@>B>' '1.'+@>' A.1B1+ 10' 1''?C >0C>!' J<?' .C@$?@1A'
1'' 1%>D1'L' <%<,>.<!' J@1?>' @1?A +<$%>' B<0? 10' J<?'
+?>%'' <0' <C<D>BE' '1.' B>0' 1'' %>++>.?!' <0D' J@1?>'
A. 0C>%E' .>,>0#>?' J>.>' % $>.<%%E' D ?A>0?>D' 0' +@> .'
A.1+>C+ 10!' J<?' .< ?>D' +1' +@>' ?>>' 1'' .<0<D<L' <0D'
; B>0>?!' J@1?>' ?A%>0D D' % +>.<.E' A.1">C+?' J %%' .>P
F# .>' B1.>' A<.+ C#%<.' 01+ C>' @>.><'+>.!' ?#CC>>D>D'
>0D1G<' 0' +@>' A. B<CE' 1'' A< 0 ' 0D>.'+@>' A.1P
+>C+ 10' 1'' +@>?>' >0% =@+>0>D' A<+.10?!' +@>1%1= C<%'
?+#D >?' J>.>' A#.?#>D' J +@' <.D1#.!' +@>' C. A+#.>?'
C1A 1#?%E' %%#?+.<+>D!' <0D' ?<C.>D' >%1F#>0C>'C#%+ ,<+>D'
J +@' ?#CC>??

' ? B %<.' BA#%?>' J<?' '>%+' 0' +@>' 1+@>.' J<%H?' 1''
?C >0C>' /#. ?A.#D>0C>' <??#B>D' <' 0>J'<?A>C+' $)5

+@>' %><.0>D' %<$1#.?' 1'' 10+<%,1 T' @>' B<+@>B<P + C?' '1.B>D' <' A. 0C A<%' $.<0C@' 1'' >D#C<+ 10!' <0D' J>.>' ?#CC>??'#%%E' <AA% >D' +1' <?+.101BE' <0D' =>1P =.<A@E' <%#<$%>' +.><+ ?>?' J>.>' A.1D#C>D' 10' B>D P C 0>!' <0D' 10' +@>' B1.>' '<B % <.' A.<C+ C<%' <.+?!' <?' @#?P $<0D.E!' '1.' >K<B A%> +' ?+1.E!' J@ C@' ? 0C>' +@>' + B>'1'' %A@10?1' ; ' @<D' $>>0' @>%D' 0' @ =@>.' @101#.!' <0D' B1.>' J D>%E' C#%+ ,<+>D' 0' <?+ %>' +@<0' 0' <0E' 1+@>.' #.1A><0' ?+<+>!' $>=<0' +1' %<E' <? D>' +@>' =<.$' 1'' C@.10 C%>!' <0D' +1' $>' ?+#D >D' 10' B1.>' ?C >0+ ' C' A. 0P C A%>?' @<.+>.?' <0D' D A%1B<?' J>.>' C10?#%+>D!' B<M' 0#?C. A+?' C1%%<+>D!' C1 0?' <0D' %<A D<.E' 0?C. A+ 10?' D>M' CEA@>.>D!' <0D' C1%%>C+ 10?' 0U<D>' 1'' +@>?>' B<+>. <%?!' +@>' +.#>' $<? ?' 1''<#+@>0+ C' @ ?+1 E'L' <0D' <0' 1'' C>' 1'' A#$% C' <.C@ ,>?!' % H>' +@<+' 01J'>K ?+ 0=' <+' B<0C<?!' J<?' >?+<$% ?@>D' <+' #.=1?!' <0D' A%<C>D' #0D>.' +@>' C<.>' 1'' %10?1' D>' 1+<!' <?' H>>A>.!' J +@' <' % $>.<%' ?<%<.E'U

1+@ 0=' C1#%D' @<,>' $>>0' B1.>' 1AA1.+#0>' '1.' +@>' >0% =@+>0>D' A#.A1?>?' 1'' ?<$>%%<' +@<0' +@>' 0+.1D#CP + 10' 1'' +@>' <.+' 1'' A. 0+ 0=' 0+1' A< 0!' <+' +@>' C1BM

$' ' 1' 1%@')' A' %A $' ' 0' A,' 5, ,)'$, A 5' +$, ( ) $' ' % ',!' (A%3' .,!' %)5' % ',!' (A%3! FF.,!' 0' A' 3)' B @!

' A' 1 ' 1%@%4' 0' A ' % ',' 8 %K' % , ')' ',($ $ ' BA,(A' ,)(', ' 3$4 ,(% ,)' ,)' 5' ,)' 6 ' A%' 3% 5' A $'A'%'.% , C' 0' 5, ,)'%'A 1'%)5' %) % ,)' %4 %5!' ,4! 8, 3!' .%' 1!' ,! 3! 6 !

' A,' ((,)' B, A' A ', ' $(@' BA,(A' A%' ' 0)' 4 0%;)' $(A' 3 , , ',)' 3%,)' B%' 4$)' ,)'Q A' 9%' 0' A' * 11$), , ' ,)' A' ,1 ' 0' *A% ' E!' 1!' 5' %' %' (%5' 5' 8, !' 1!' .,!' , !' F.,!' J' 14 , ' 5' % ' 4 % 1!.,,!3!' I<' 5!' /H !' J)0 1' 5' , ' BA' 3% ,; ($ % C') ,(' 5,)%)5' %)5' %4 %K' ,(, $5' 0' 3 .; ,)'' A' 3$4 ,(' 5 ($1) !

B>0C>B>0+!' 0D>>D' +@>' ,>.E' '.?+' E><.' 1'' @>.' .> =0'
@>' ?<J' '.1B' +@>' '.?+' B1B>0+' <%%' +@>' <D,<0+<=>?U +'
A.1B ?>D' '1.' D ''#? 0=' <0D' A>.A>+#<+ 0=' +@>' D ?C1P
,>. >?' 1'' ?C >0C>L' ?@>' >0C1#.<=>D' +?' >?+<$% ?@B>0+'
$E'%<.=>'A. , %>=>?' +1' +@1?>' J@1'>K>.C ?>D' +!' J@>+@>.'
0<+ ,>?' 1.' '1.> =0>.?!' <0D' $E' C<#? 0=' B<0E' 1'' +@>'
J1.H?!' C1BA1?>D' $E' @>.' ?#$">C+?!' +1' $>' A. 0+>D' <+'
@>.'1JO'C@<.=> T

B10=' +@>'><.%>.' A. 0+>.?' J>' '.>F#>0+%E' '0D' +@>'
0<B>?' 1'' >.B<0?!' <' A>1A%>' J@1!' +1' +@>' 1. = 0<%'
B>. +?' 1'' +@>' D ?C1,>.E!' B<E' "#?+%E' <DD' +@<+' 1'' +?'
A.1A<=<+ 10' <B10=' >,>.E' 0<+ 10' 1'' #.1A>' >'
B>>+' J +@' <' A.<=B<+ C<!' 1.' .1E<%' 1.D 0<0C>!' D<+>D'
699!' >K>BA+ 0=' <' >.B<0' 0<B>D' @>1D1.C' '.1B'
+<K<+ 10!' 10' +@>' =.1#0D' 1''$> 0=' Q' 10>' 1''+@>' A. 0C P
A<%' A>.?10?' 0' +@>' D ?C1,>.E' <0D' A.<C+ C>' 1''+@>' <.+'
1'' A. 0+ 0=' $11H?!' J@ C@' @>' @<D' $.1#=@+' J +@' @ B'
0+1' A< 0' <+' =.><+' . ?H' <0D' >KA>0?>!' J +@' +@>' D>P
?=0' 1'' >001$% 0=' +@>' %$.<. >?' 1'' +@>' H 0=D1B R''
101A1% >?' '1.' A. 0+ 0=' <0D' ?>%% 0=' $11H?' '1.' <'
% B +>D' A>. 1D!' <0?J>. 0=' +1' +@>' B1D>.0' C1AE. =@+!'
J>.>' =.<0+>D' +1' C>.+< 0' A>.?10?!' 10' C10? D>.<+ 10' 1''
+@> .' D1 0=' ?1' <+' <' .><?10<$%>' .<+> U' +' ?>>B?' +1'
@<,>' $>>0' #?#<%' '1.' +@>' A. 0+>.?' +1' $>' <%?1' +@>' A#$P
% ?@>.?' <0D' ,>0D>.?' 1'' $11H?' @>?>' >KC%#? ,>' A. P
, %>=>?!' @1J>,>.!' D1' 01+' <AA><.' +1' @<,>' $>>0' C<0 >D'
+1' <' B ?C@>,1#?' >K+>0+' 1.> =0' $11H?' 1'' >,>.E

/).//C' :8(&!'85' 08'7 /6' ./ C<D' 4(6',' 8
) %' 3!' 6 ' DD!' >0D>G!' EA1=BA@' d 08'7
+' !*5,' D>' %!*'' <A#D)(' 88787' 7

7:

D>?C. A+ 10! $E< %<J 1'' 64 ! J>.> <%%1J>D +1 $>
BA1.+>D 0+1 +@> H 0=D1B! '.>> 1'' <%% D#+E J@<+P
>,>.'L <O >0% =@+>0>D A.1, ? 10! J@ C@ B =@+'#.0 ?@
<O #?>'#% @ 0+ +1 %>= ?%<+1.? 1'' +@> 0 0>+>>0+@ C>0P
+#.E T

@> ' .?+ A.>?? <AA><.? +1 @<,> $>>0 >.>C+>D <+
<%>0C < 0 696'L <%+@1#=@ +@> =%1.E 1'' A.>C>D>0C>
? ?+1#+%E C10+>?+>D $E ?>,>.<% A%<C>?! <0D >?A>C <%%E
<.C>%10< Z @> ' .?+ J1.H A. 0+>D J<? < C1%%>CP
+ 10 1'' ?10=?! C1BA1?>D '1. < A1>+ C<% C10+>?+ O
@101#.' 1'' +@> .= 0! '1. +@> B1?+ A<.+ 0 +@> P
B1#? 0! 1. <%>0C <0 D <%>C+ U 0 +@> '1%%1J 0=
E><.' +@> ' .?+ <0C >0+ C%<?? C! $> 0= +@> J1.H? 1'' <%P
%#?+! J<? A. 0+>D L <0D 0 694! +@>.> <AA><.>D '.1B
+@> ?<B> A.>?? < +.<0?%<+ 10 1'' +@> C. A+#.>? 0 +@>
B1#? 0! $E <+@>.' 10 '<C> >..>.! $.1+@>.' 1'' +@>

Q 5,)%)G% % ,4! ,.! , ! ,.! C FF,,! J A 3 %14 '
0 A, % $, F3 5 ,) A 0 B,)'') ,'A) 5 1 ''
Z *) ,5 %)5 ' C 5 ' ' > , % 1 1 ,% 2$%) ' % 3 >
. (A C A) 2$ ' %' ' $ ' C) ' $F)' ,4 '5 '
% ' 3% ' 3% % 2$ ' ( )' ' 'A,G,)' 'A 14 ' %5 '
2$, ,)' C 5)%)' 2$ ' 5 '
,4 ') ' ' 3%'% ' ' % (%>
.% %!>>>>>> '2$%'3% ('2$ ' >
5$)5%')>3 . (A '$),. % '5 '
5 ' C')')) 4 (,1,) '5 '
)$ ' C) ![

' *%31%)C' 1)%' 5 '
% ( )%' 1&,L'3% ',,' ,4! ,,!
(! .,! J)5 G' 33> 66 J H !

$ B @,) ,1% ' A%' A '
% ' 0 3 ,) ,)'' B%' 0, ' 3 %(;
, 5 ,)' 3%,)'4C : 1%)'3 ,) ;
' % ' ., ' ' !+# .# '
*'!+# & <!## !+' # !" =' P $>
C @' : (A,(A ' 5 ' ,
,15 5 %1@ , ' %)5! ,,,! 3!
HI!X 8 '%33 % ' 'A%. ' 4)'
1, 5 4C %' , % C F%13 '
2$ 5 0 1' %C%) ' C' , (% !
A 'B%) ' 0 1% ,% 'A% '1 '
A%)')(' 5 A, ' 1,)) '(, ,(
' 4$, 5 B 3,)'' ( )($,)'
)')5 '3 1, !
0' A ' , ' 0 A '4 @ , '
8 * %1)' ,(A') A '5 '
%' *)((, Z E%)(,%' D/D'
D ' A ')%1 ' 0 A '3 ,) ', '
B%) ,)'! C3 ' %3A! 3%,, %'
3! 6 !

'<B1#? 1B 0 C<0! + 0C>0+ >..>. T @.1#=@
+@> % $>.< A<+.10<=> 1 '+@> =1,>.0B>0+! +@> <.+ J<?
J D>%E D ''#?>DL <0D $>'1.> +@> >0D 1 '+@> ' '+>>0+@
C>0+#.E! A.>??>? J>.> >?+<$% ?@>D <0D 0 <C+ ,> 1A>P
.<+ 10 0 +@> A. 0C A< C + >? 1 '+@> #0 +>D H 0=D1B!
O 0 1%>D1! >, %%>! #D<D ><%! .<0<D<! <%%<P
D1% D! #.=1?! <%<B<0C<! V<B1.<! <.<=1??<! <%>0M
+ <! <.C>%10<! 10+> >E! >. D<! #.C <! 1%1?<!
<.<=10<! %C<%< D> >0<.>?! <0D <D. D
+ ? A< 0'#% +1 01+ C>! <B D +@> "#D C 1#? A.1, P
? 10? '1. +@> >0C1#.<=>B>0+ 1 ' ?C >0C>! 10> ?1 >0P
+ .>%E .>A#=0<0+ +1 +@> . ?A . + <? +@> >?+<$% ?@B>0+
1 '+@> C>0?1.?@ A E <0 1.D 0<0C>! D<+>D 1%>D1!
/#%E 4+@! 8 7! + J<? D>C.>>D +@<+! Q <? B<0E 1 '+@>
$11H? ?1%D 0 +@> H 0=D1B J>.> D>'>C+ ,> 1. '<%?>! 1.
<A1C.EA@<%! 1. A.>=0<0+ J +@ ,< 0 <0D ?#A>.?+ + 1#?
01,>%+ >?! + J<? +@>.>'1.> 1.D>.>D +@<+ 01 $11H
?@1#%D @>.><'+>. $> A. 0+>D J +@1#+ ?A>C <% % C>0?>
'.1B +@> H 0=! 1. ?1B>A>.?10 .>=#%<.%E C1B B ?? 10>D
$E @ B '1. +@> A#.A1?> R @> 0<B>? 1 '+@> C1BP
B ?? 10>.?+@>0 '1%%1J! C10? ?+ 0= B1?+%E 1 '>CC%>? <?P
+ C?! <.C@$?@1A? <0D $?@1A?! J +@ <#+@1. +E .>?A>CP
+ ,>%E 1,>. +@> . ?>,>.<% D 1C>?>? " @ ? <#+@1. +E
J<? D>,1%,>D 0 %<+>. + B>?! #0D>. @<.%>? <0D
@ ? ?#CC>??1.?! 10 +@> C1#0C % 1 '+@> #A.>B>! 1,>.
J@ C@ +@> 0F# ? +1.M >0>.<% A.>? D>D >KT1'' C 1
@> B B>D <+> <=>0+? >B A%1E>D 0 +@> >K<B 0<+ 10
J>.> <%?1 D.<J0 '.1B +@> 0F# ? + 10! J@1 >K>.C ?>D

L C3 ' %3A! 3%0, % 33! J !
] 4,5! 33! 6 6 ! J % '1%,(% 5 (C) 0 ! I H!

+@ ? BA1.+<0+ +.#?+! <? ? J>%% H01J0! 0 < B<00>. B1?+ '<+<% +1 +@> 0+>.>?+? 1' %>++>.? <0D @#B<0 +E @#? < A.1, ? 10 D>?+ 0>D 0 +? 1. = 0 '1. +@> <DP ,<0C>B>0+ 1'?C >0C>! $E A#. 'E 0= + '.1B +@> C.#D P + >? <0D C1..#A+ 10? J@ C@ 0<+#.<%%E 0'>C+ + 0 < A. B + ,> <=>! C10+. $#+>D B1.> >''>C+#<%%E +1 +? D ?P C1#.<=>B>0+ +@<0 <0E 1+@>. J@ C@ C1#%D @<,> $>>0 D>, ?>D! $E 0+>.D C+ 0=+@> '.>>D1B 1'>KA.>?? 10 ?1 0D ?A>0?<$%> +1 '.>>D1B 1' 0F# .E T

@ %> >0D><,1#. 0= +1 D1"#?+ C> +1 +@> A.1=.>?? 1'C , % G<+ 10 0 +@ ? .> =0! ?@1#%D .>=.>+ +1 A.>P ?>0+ +1 +@> .><D>. <0 1,>.C1%1#.>D A C+#.> 1' +? .>P ?#%+? 0D>>D! %>?? >BA@<? ? ?@1#%D $> %< D 10 <0E <C+#<% .>?#%+?! +@<0 10 +@> ?A . + 1' BA.1,>B>0+ J@ C@ +@>E 0'>. 0 +@> 0<+ 10! <0D +@> % $>.<% D ?A1P ? + 10? 1' +@> =1,>.0B>0+ @> ' '+>>0+@ C>0+#.E J<? D ?+ 0=# ?@>D $E < G><% '1. .>?><.C@ <0D %<$1P . 1#? <CF# ? + 10! >?A>C <%%E 0 <0C >0+ % +>.<+#.>! +@.1#=@1#+ #.1A>! J@ C@ ?@1J>D +?>%' 0 +<%E 0 +@> $>= 00 0= 1' +@> <=>! <0D 0 A< 0 <0D ?1B> 1+@>. C1#0+. >? +1J<.D? +@>&C%1?> + J<? 0<+#.<%

L) 8, 5 K)2$,> 3 < 2$ 3 $.$ 2$ + , ,) 1!,!(A%3!F,,,!% !,!) 3%) 1 (,),5 K%$> Y 5 13 3 9"&! #&H ,),5 ($),5 %3 ,; %C % (, $ 0A ' 1C ,1 ,2$),5 %1 %),5 0 1, ,%) Z 2$)5,%$> ')) 3%( ),5 (3) 5,)5,2$ (11 (, ![PE, %' (5,),5 K 3 %'),5 ' ,(! 3! 1! .,! 3! 6 !X %$ 3 (%( ),5 3)) %$1% (A%, ,)' %1 , . ,) 2$, ,)) %' %2$ 2$ (A + ,)5 5 1%(A %1 4, 3$, $,13 ,1 ,4 1) 0 (,)! 8 K %4 ,5%) $,) K,) 3 (,) 5 5 $F $ %5 ,5 $) C 1 5 ,4 C , ( ) $![<0<=>5 P $ % .) 5 3 5$(,) =<.1!<C+> ?C 2$, K)5 1 1 %(5 %

+@<+ B>0 ?@1#%D >KA%1.> +@> %10=M$#. >D +.><?#.>? D>?C>0D>D '.1B +@> .< <0C>?+1.? $>'1.> ,>0+#. 0=> 10 <0E+@ 0=> 1'+@> .< 1J0 C.><+ 10 @> .> >''1.+? J>.> C1BA%>+>%E ?#CC>??'#%L <0D $E 1A>0 0=> <0 <CF#< 0+P <0C> J +@ +@> B B1.+<% A.1D#C+ 10? 1'<0C >0+ % +>.<P +#.>! +@>E %< D +@> $>?+ '1#0D<+ 10 '1.< +@> C#%+ ,<P + 10 1'+@> B1D>.0

0 +@> ?C >0C>? +@> .< ?#CC>?? J<? B1.> >F# ,1C<%L <> $% 0D .>,>.>0C> '1.< <#+@1. +E! <> @<$ + 1'?A>C#%<P + 10 0?+><D 1'>KA>. B>0+! ?1 A>.0 C 1#? 0 A@E? C? L 0 ?@1.+! <0 =01.<0C> 1'+@> +.#> A. 0C A%>? 1'A@ %1P ?1A@E 1'+>0 %>D +@> ?C@1%<.? 1' +@<+ D<E 0 < J.10= D .>C+ 10 ,>0 J@>0 +@>E +11H <. =@+ 10>! +@> .< <++< 0B>0+? #0D>.< %% +@>?> BA>D B>0+? J>.> 0>C>?P ?<. %E ?1 ?B<%%! <? +1 $> ?C<.C> A>.C>A+ $%> J@>0 , >J>D '.1B +@> $. %% <0+ @> =@+? +1 J@ C@ ?C >0C> @<? <.. ,>D 0 1#.< 1J0 <=> 0'1.+#0<+>%E '1.< A< 0! +? ?#$?>F#>0+ <D,<0C>B>0+ @<? $>>0 ?1 .>P +<.D>D! +@<+ < C1BA<. ?10 1'+@> ' '+>>0+@ C>0+#.E J +@ +@1?> J@ C@ ?#CC>>D>D +? ? $E 01 B><0? ?1 @#B % <+ 0=> +1 +@> '1.B>.< ? 0 ?1B> 1+@>.< C1#0+. >? 1' #.1A> L <0D +? ? C>.+< 0 +@<+ 0 =>0>.<% 0+>%%>CP +#<% '>.B>0+<+ 10 01 A>. 1D @<? ?#.A<??>D! ' +C<0 $> ?< D +1 @<,> . ,<%%>D! +@> <=> 1' ?<$>%%<

‘

5 ‘ ; ; L!‘ T

‘ O ‘ ‘ O‘

‘ 5 ‘O ‘

% &‘ 1.‘ A1% +>‘ % +>.<+#.>!‘ J@ C@!‘ >B<0<+P
0=‘ '.1B‘ +@>‘ +<?+>‘ <0D‘ ?>0? $ % +E‘ 1'‘ <‘ 0<+ 10!‘ .><P
D %E‘ >K@ $ +?‘ +?‘ ,<. 1#?‘ '%#C+#<+ 10?‘ 1'‘ '<?@ 10‘ <0D‘
'>>% 0=!‘ J<?‘ ?+<BA>D‘ 0‘ A< 0‘ J +@‘ +@>‘ D ?+ 0=# ?@P
0=‘ C@<.<C+>. ?+ C?‘ 1'‘ +@ ?‘ .>,1%#+ 10<.E‘ <=>‘ @>‘
5.1,>0‘U<%>!‘ J@ C@‘ .><C@>D‘ ?#C@‘ @ =@‘ A>.'>C+ 10‘ 0‘
<+<%10 <!‘ <0D‘ ?#$?>F#>0+%E‘ 0‘ .<=10!‘ <?‘ 01+ C>D‘
0‘ <0‘ 0+.1D#C+1.E‘ C@<A+>.!T‘ >KA .>D‘ J +@‘ +@>‘ #0 10‘
1'‘ +@ ?‘ B10<.C@E‘ J +@‘ <?+ %>‘L‘ <0D‘ +@>‘ D <%>C+‘
C><?>D‘ +1‘ $>‘ <AA% >D‘ +1‘ % +>.<.E‘ A#.A1?>?‘ <%+1=>+@>.!‘
<'+>.‘ +@>‘ <?+ % <0‘ $>C<B>‘ +@>‘ %<0=#<=>‘ 1'‘ +@>‘ C1#.+‘
0‘ +@>‘ #0 +>D‘ H 0=D1B?‘ @>‘ A1>+.E‘ 1'‘ <?+ %>!‘
J@ C@‘ +@.1#=@‘ +@>‘ A.>?>0+‘ .> =0‘ C10+ 0#>D‘ +1‘ $.><+@>‘
+@>‘ ?<B>‘ A<+. 1+ C‘ ?A . +!‘ <0D‘ +1‘ >K@ $ +‘ +@>‘ ?<B>‘
0<+ 10<%‘ A>C#%<. + >?!‘ J@ C@‘ @<D‘ D ?+ 0=# ?@>D‘ +‘
'.1B‘ +@>‘+ B>‘ 1'‘ +@>‘ D!‘ ?#$B ++>D‘ ?110‘ <'+>.‘ >.P
D 0<0D ?‘ D><+@‘ +1‘ +@>‘ 0'%#>0C>‘ 1'‘ +@>‘ B1.>‘ A1% ?@>D‘
#?C<0!‘ <0D‘ @>0C>'1.+@‘ %1? 0=‘ ?1B>J@<+‘ 1'‘ +?‘ D ?M

L‘ ,(AA 1‘ : (A,(A ‘5 ‘ "$ $‘$)5‘ , %$ ‘33!‘ H‘ !
‘% ‘ A ‘( )($,)‘ 0‘ A ‘) 5!‘ (!.,,!‘ 0‘ A,‘8, C!

J<?' ' .?+' A. 0+>D' 0' <' A<0 ?@' ,>.? 10!' A.1$<$%E' 01+' '<.' '.1B' 6: T' +?'>D +1.!' <.C' .D10>G' D>' 10P +<%,1!' ?+<+>?' 0' @ ?' A.1%1=#>!' +@<+' Q' @>' C1..>C+>D' +' '.1B' +@>' <0C >0+' 1. = 0<%?!' A.#0 0=' +' 1'' <%%' ?#A>.P '%#1#?' A@.<?>?!' <0D' ?#$?+ +#+ 0=' 1+@>.?' 1'' <' B1.>' A1% ?@>D' <0D' >%>=<0+' ?+E%> RZ' 1J' '<.' +?' C@<.<C+>.' J<?' $>0>' +>D' $E' +@ ?' J1.H' 1'' A#. ' C<+ 10' B<E' $>' D1#$+>DL' <%+@1#=@' +' ?' A.1$<$%>' +' D D' 01+' ?#''>.' <?' B#C@' $E' ?#C@' <' A.1C>??' <?' +' J1#%D' @<,>' D10>' 0' <' %<+>.' <0D' B1.>' C#%+ ,<+>D' A>. 1D' @>' ? BA%>' $><#P + >?' 1'' +@ ?' ' 0>' 1%D' .1B<0C>!' +?' $#?+% 0=' 0C D>0+?' .>% >,>D' $E' +@>' D>% C<+>' A%<E' 1'' . >0+<%' B<C@ 0>.E!' +?'=>0>.<%' +.#+@' 1''A1.+.< +#.>!' <$1,>' <%%!' +@>' H0 =@+P %E' C@<.<C+>.' 1'' +@>' @>.1!' J@1' =.<C>D' +@>' A.1J>??' 1'

%0 'A,1' , 1)5,'B, A $'%5; 5$(,)'' %)C'%$ A , C'A%.'0,F; 5' A' %' 0' 4 ,%L'5 % A'%' 6!' %) 'BA' 5, 5' 4$' 0 $'C % '3 ., $' ' A%'5% ' 0$), A ' %') '%,. ' % '$1)' % ' % '%'%,) ' A, ' ,)(',)' A, ') ,(' 0' 1 ' 0' A'4 '4 @' 0'(A,.% C' A)' F %)'A'1%@ ') '% $,)' ' 1%5, ' A'4 ' 0'% !')0) '(%) '.! L' A' F( )' 5' 1%)(' , %) ' A' 9A, ' A !' ' N +'B%'3 ,) 5'%'E%); (,%' DH !' P)5 G' C3 >' ' %3A!' 3% %' 1!' ,!' 33!' / ' J>/6!X 0'%' * .%) '% ' A' 1%5, 'B%' A' 0, '4 @' 0'(A,.% C' 3 ,) 5',)' 3%,)' , ' 1$ 'A%. '4)'%) , ' ' A, ' 5% !' A, ', ')5 5'3 4%4 ' 4C') % . ' 3 '$' ' A, ' 5, ,)' 0' % %' % '6 ' , 3 . 5',)' A' C%' ,4 % C' %' %5 ,5'BA 'A'% $5 ' 'A, ' 0 1 '3$4 ,(% ,)' 0', ' ,)' A ' ,1 ' 0' 5,)%)5' %)5' %4 %!' P* .%) ')' #$,F < 5!' ,(' , ($ ' ,1!X !' $) 3' BA' A%' %)%; C 5' A ' 1%)('B, A'%'3%>' ,3)('A%'1 'B, '4'5, 3 5' ' (1 1)5' A%)' ,1, % 'A%' 4)' 5',) 'A' , ' 0' $3; 3 ,)'' A%' A'0, ' 5, ,)' 0' 1%5, 'B%'3 ,) 5'% ' ., ' 6 '0 1'5 %(A 5'0 %'1) ' ,)' A' ,1 ' 0' 5,)%)5' %)5' %4 %' %)5' $4 2$) C' 4C') % . ' %' % %1%)(%' 6D/!' '8, ' 0' ,(,)' . ! ,,! (!F! ' A'0 B,)'' , ') %; . K'4 , 0'3 '$' ' A' ,) ; 5$(,)' 0'A'0, '4 @!' Y' 2.' (1,) %' '3 ,1 ' ,4 ' 5 ' 0 0%5 ' ' ., . ' (%$%

C@ ,<%.E' J +@' <' C1#.+>?E!' B1D>?+E!' <0D' ' D>% +E!' #0. P
,<%%>D' 0' +@>' C.><+ 10?' 1'' .1B<0C>!' ?110' .>C1BP
B>0D>D' +' +1' A1A#%<.' '<,1#.' <0D' B +<+ 10 ' ' C10P
+ 0#<+ 10!' $>< 0=' +@>' + +%>' 1'' Q' <?' ?>.=<?' D>' +?M'
A%<0D <0!R' J<?' = ,>0' +1' +@>' J1.%D' $E' 10+<%,1' @ BP
?>%'!' <0D'=.<'+>D' 10' +@>'1. = 0<%?+1CH!' <?' +@>' ' '+@' $11H'
1'' +@>' B<D ?!' $>'1.>' 8 ' ' ? K+@!' C10+< 0 0=' +@>' <D,>0+#.>?' 1'' @ ?' 0>A@>J!' J<?' A. 0+>D' <+' <%<P
B<0C<' 0' +@>' C1#.?>' 1'' +@>' %<?+MB>0+ 10>D' E><.L' <0D' +@#?' +@>' D%>' J. +>.?' 1'' +@>' D<E' C10+ 0#>D' +1' A.1P
A<=<+>' D#%0>??' +@.1#=@' <' ?>. >?' 1'' @><,E' +1B>?!' <B1#0+ 0=' 0' <%%' +1' '1#.' <0D' +J>0+E' $11H?!T' #0+ %' +@>' B#C@M<$#?>D' A#$% C' J>#%D' 01' %10=>.' ?#''>.' +@>' 0<B>' 1'' B<D ?' +1' C%1<H' +@>' B<0 '1%D' ? 0?' 1'' @ ?

B<D ?' @"1' D>% .>E' 5>. 10' D>' <#%<' E' D>%<' .>E0<' %?>0<' >%' F#<%' '#>' C1.>=D1' E' >B>0D<D1' A1.' >%' @10.<D1' Y' # .+#1?1' C<#<%M %>.1' <.C1.D10>?' D>' 10+<%#1!' .>=D1.' D>%<' 01$%>' # %%<' D>' >P
D 0<' D>% C<BA1' Y' C1..>=1%>' D>' %1?' <0+ =#1?' 1. = 0<%>?' F#>' >?+<#<0' C1.BA+1?!' Y' C1BA#>?M
+1?' >0' <0+ =#1' >?+ %1' A1.' '<%+<' D>%1?'D '>.>0+>?'>?C. A+1.>?' I # M
+<0D1' B#C@<?' A<%<$.<?' ?#A>.M
'%#<?' Y' A10 >0D1' 1+.<?' D>' B<?'
A1% D1'E' >%>=<0+>' >?+ %1' +1C<0+>?
<%<' C<#<%%>. <' Y' <C+1?' D> <!' <0M
B<0D1' %1?' C1.<'10>?' =>0+ %>?' D>'
B<0G>$1?' $>%% C1?1?' F#>' C10'
=.<0D ?? B1' <''>+1' <$.<G<0' >%
< +>' D>%<' B % C <' C1.A1.<%!' <0M
B<0D1' %<' BB1.+<%' B>B1.' <' D>%
<.+>' D>' C<#<%%>. <' 01' B>01?' @1M
0>?+ ?? B1'F#>'=%1. 1?1R' B<D ?'
D>' <#%<!' '1%' L'>D' >0' 8

L' ,(!')), ')$1 % '
A ' 5, ,) ' 0' A,)' 0' $ '
5 $'A C'0%1, C' 0'@), 'A > %) !'
P ,4!' .!' 1!' ,,!' AA' :6!'
:8 *' 8 '5, 1, 'A, ') ,('
B, A' A ' 0 (,)' 1 BA%'
1 ' (A% , %4 ' A%)' A%' 0'
)' #$,F K' ($ % ' A%' Y' A '
A%5' 0 ' , ' ,) ' ,)' ,) . >!'
, '% ,) '' A ' 0%4 ' C ' B% '
B, ,) '' ' %5 1 , ' B, A' A '
A% ' A , ' %5,) '' B% ') ' BA ;
C' $!Z

1.<+ 0' @<?' C1%%>C+>D' <0' <AP
A<%% 0=' C<+<%1=#>' 1'' ' 1''+@+''
$11H?' 1'' C@ ,<%.E' A#$% ?@>D' 0'
A< 0' <+' +@>' C%1?>' 1''+@>' ' '+>>0+@
<0D' +@>' '1%%1J 0=' C>0+#.E' @>'
' .?+' 10' +@>' % ?+' ?' +@>' * ' '
8 ' A1.' >=1' >.0<0D>G D>'
<0' 5>D.1!' >0' #.=1?!' <01' D>'
6: ' >>' $.1?!' >D' ><%
C<D D> ?+'+1B AA : j==j

A1?+>. +E +@>. H0 =@+?M>. .<0+ J >.> ?>0+ .1, 0=
<$1#+ +@> J1.%D <+ +@> ?<B> + B>! J@1?> >KA%1 +?
J1#%D ' %% < % $.<.EL $#+ '1.+#0<+>%E +@>E @<,> $>>0
A>. B ++>D +1 A<?? 0+1 1$% , 10! '.1B J@ C@ < '>J 1''
+@> . 0<B>? 10%E @<,> $>>0 .>?C#>D $E +@> C<#?+ C
C. + C ?B 1''+@> C#.<+> 0 10 I # K1+>! J@1! + J %%
$> .>B>B$>.>D! <'+>. D>C%<. 0= +@<+ +@> , .+#>? 1''
+@> A<.>0+ ?@<%% 01+ <,< % @ ? A1?+>. +E! C10D>B0?
+@>B <0D +@> . C1BA<0 10?! J +@ 10> 1. +J1 >KC>AP
+ 10? 10%E! +1 +@> '<+<% '#0>.<% A %> T

@>?> .1B<0C>? 1''C@ ,<%.E B#?+ @<,> #0D1#$+P
>D%E C10+. $#+>D +1 01#. ?@ +@1?> >K<==>.<+>D ?>0+ P
B>0+? J@ C@ '.1B < ,>.E ><.%E A>. 1D >0+>.>D 0+1
+@> A<0 ?@ C@<.<C+>. @> . >, % 0'%#>0C>! 0 <
% +>.<.E A1 0+ 1'' , >J! .>?#%+>D %>?? '.1B +@> . BP
A.1$<$ % + >? 1''? +#<+ 10! J@ C@ +@>E ?@<.>D 0 C1BP
B10 J +@ +@> 0 B +<$%> +<% <0 >A C?! +@<0 '.1B +@>
'<%?> A C+#.>? J@ C@ +@>E A.>?>0+>D 1''@#B<0 C@<P
.<C+>.! '<B % <. G 0= +@> >E> 1''+@> .><D>. J +@ ?#C@
B1D>%? <? D>$<#C@>D +@> +<?+>! <0D .>0D>.>D @ B 0P
C<A<$%> 1''.>% ?@ 0= +@> C@<?+> <0D ?1$>. A.1D#C+ 10?

L * .%)) #$,F 1! ,! 3% ! (! .,!
A ($ % K . %A , . C 13A%,(% C F3 5 8 $.%C%) 5 % (% 5,F *$ % 2$ % $ (5 2$ 1% % % C)% ,) ,2$,), % C % 3% % ,) C % $ ' '% C % %G) 5 $ %$ 2$ 1% % ( ) % 3%5 2$ 1)') 5 , %)5$4, %) 0,'$ % 5 *%4% %)5%) ![A %$ A

0 A ,% ' 5 %)'$% (A,1 ,)B, A A %1) 0 (, ,(, 1! 8 2$% Z A %C 3 %@,)'' 0 4 @ 0 (A,; .% C Y5 1% 5 1), > , ,1) % 1% (13$ > % , 3 5 G, % !1) , % %) 5 . ')T%5% (1 3 C % %)5,%4 %5% C .$ % %G) 5 $ %$ 2$ 1% % ( ) % 3%5 2$ 1)')> 5 , %)5$4, %) 0,'$ % 5 *%4% %)5%) ![A %$ A) %C 4$) 1%' 2$ 3$ 5% ![3! %C%) C , > (% 1! ,,! 3! 6I!

1'<.+ +? .>B<.H<$%> +@<+ +@> C@ ,<%.1#? .1P
B<OC>! J@ C@ J<? ?1 C1A 1#?%E C#%+ ,<+>D +@.1#=@
+@> =.><+>.'A<.+1'+@> ? K+>>O+@ C>O+#.E! ?@1#%D 01+
@<,> <??#B>D +@> A1>+ C '1.B <? O +<%E! <OD OD>>D
<B10=1#.' 1.B<O <OC>?+1.? L <OD +@<+ O +? A.1?>
D.>??! 01 0<B> 1' 01+> <AA><.? +1 .< ?> + +1 <@ =@
D>=.>> 1' % +>.<.E B>. + 5>.@<A? ?#C@ <' .>?#%+
B =@+@<,> $>>O <C@ >,>D! $#+ '1.'+@> ?#$% B> A<.1P
DE 1' >.,<O+>?! J@ C@ C#+ ?@1.+ +@> J@1%> .<C> 1'
HO =@+?M>..<O+! <OD! $E +@>' O> .1OE J@ C@ + +@.>J
<.1#OD +@> B1CH @>.1> 1' C@ ,<%.E! >K+ O=# ?@>D
+@>B '1.'>,>. TR

@> B1?+ A1A#%<.' A1>+.E 1' +@ ?' A>. 1D! +@<+
?A. O= O=' . B +@> $1DE 1' +@> A>1A%>! <OD B1?+ OP
+ B<+>%E <DD.>??>D +1 +! ?' +@> $<%%<D?! 1.'
<? +@>E <.> +>.B>D O A< O @>?> OD>>D J>.>
'<B %<.' +1 +@> A>O O?#%< <? '<.' $<CH <? +@> +J>%'+@
<OD +@ .+>>O+@ C>O+#. >?L $#+ O +@> A.>?>O+ .> =O
+@>E .>C> ,>D <' '.>?@ BA#%?>' '.1B +@> J<.' J +@
.<O<D<! <OD C1BA1?>D! #OD>.' +@> O<B> 1' +@>
11. ?@ $<%%<D?! J@<+ B<E A>.@<A? $> .>=<.D>D

A %4 $ O B , % ,)' . 4% (, ,(, 1 BA,(A
, % ,(%)5 %.% > ,) % B%C + ,) 5 B, A $(A
B $ 5 1 A%. 0 F) ,. $5, ,)!)0 $;
4$, 5 , ,)' '% 5)% C A 3 1% $ 5 % A O
A , $ % ,)' O * .%) < * 1)(,)' A% 0 A B @$);
4$ A (1 1) % , O * > 0,), A 5< 4$ A '0 %' 1)' (1;
1)(,)' 3$4 , A 5 ,)(A, 3 5 BA,(A %(A A ('
(A%3 B% B ,)' ,)' I T O A 0, 3% , O $00,(,)'
A B A B 1$(A C 1%,) 5 .% $ 3 1%)) C % (,%
4 $33 , 5! A C %00 5 A)%1 O', %$ A B, A A%
A 1 (3, $, $ % ,) O A ' % '),$ O A, '
4 A , % C %)5 A, ,(% O ($) C!
A, %$ A %)5 FA,4, A%),(

= 1#?' '>>% 0=' 0' +@> .' ?+.#==%>?' J +@' +@>' <.<C>0?!' J@ C@' =<,>' <' ?1B>J@<+' %1'+ >.' C@<.<C+>.' +1' +@> .' >''#? 10?' 1.+#0<+>%E' '1.' +@>B!' +@> .' ><.%E' <00<%?' =<,>' $.+@' +1' <' @>.1' 0' +@>' D!' J@1?>' A>.?10<%' .>P 01J0' J<?' D>0+ ' >D' J +@' +@<+' 1''@ ?' C1#0+.E!' .1#0D' J@1?>' 0<B>' B =@+' $>' C10C>0+.<+>D' <%%' +@>' ?C<++>.>D' % =@+?' 1''?10=L' +@#?' >0<$% 0=' +@>' 0<+ 10' +1' $# %D' #A' +?' A1>+.E' 10' +@>' A.1#D>?+' @ ?+1. C' .>C1%%>C+ 10? T' @>' '><+?' 1''B<0E' 1+@>.'@>.1>?!' '<$#%1#?' <?' J>%%' <?' .><%!' J>.>' A>.B ++>D' +1' ?J>%%' +@>' ?+.><B' 1''+.<D P + 10<.E' ,>.?>L' <0D' +@#?' <' $1DE' 1''A1>+ C<%' <00<%?!' ?A. 0= 0='#A' <?' +' J>.>' '.1B' +@>' D>A+@?' 1''+@>' A>1P A%>!' J<?' $>F#><+@>D' '.1B' ? .>' +1' ?10!' C10+. $#+ 0=' A>.@<A?' B1.>' A1J>.'#%%E' +@<0' <0E' .><%' @ ?+1.E' C1#%D' @<,>' D10>!' +1' 0'#?>' <' C1BB10' A. 0C A%>' 1''A<+. 1+P ?B' 0+1' +@>' ?C<++>.>D' B>B$>.?' 1''+@>' 0<+ 10

@>.>' ?' C10? D>.<$%>' .>?>B$%<0C>' $>+J>>0' +@>' ><.%E' A<0 ?@' $<%%<D' <0D' +@>' . + ?@' @>' %<++>.' <''1.D?' B1.>' ? +#<+ 10?' 1''A<+@1?' <0D' D>>A' +>0D>.P 0>??!' A<.+ C#%<.%E' +@1?>' 1''?#''>. 0=!' #0C1BA%< 0 0=' %1,>!' <' '<,1#. +>' +@>B>' J +@' 1%D' 0=% ?@' A1>+?' 1''>,>.E' D>?C. A+ 10 Z' >' D1' 01+' ' 0D!' > +@>.!' 0' +@>

(9' '!45/ '*5/,/6/)40 45/4* (:' =' ' :' (' 45/ ().// *' 6/:' (!45/ '68/',(!'!/ '!*(0' 95(0/ 9(%' *'4'< 04!*4:4!%/' 0 44/4(45/8%!< 04!(85/' 945 45/ %)!/004)& 8(0/% 4 0 /)(%&5 45'4 45/:' 0%/!)& (' 45/ *(%)4/00' 0%& 9/!/ !/*/,/:' '0 4!%/' 45!(%&5< &/040 6'):8()40('*()*./)*/ (%4 45/ 8/))0%' '0 '!='*? 9 45'45/)& 05 6)04!/0:' '0 45/ 49/ 45' (!'4 '4/04 45/ 5/)& 05!/'./! 9):%' 45!4//)45*/)4%!: ,/!0()('4 ')':!(6')*/0('8')' 4')/ /+*/84()' '6()& 8(/4!:')':!(6')*/0('8')' (45/!0' !/'.:(**%!0')45/8'< !(6 45/ 8/)('!'(9!)&

$<%%<D? 1'' +@>' A>0 0?#%<' +@>' J %D' .1B<0+ C' <D,>0P +#.>?' '' +@>' .1, 0=' 1#+%<J!' 1'' +@>' 1$ 0' 11D' =>P 0#?!' J@ C@' >0+>.' ?1' %<.=>%E' 0+1' 0=% ?@' B 0?+.>%?E' @>' '1.B>.' <.>' 0' =>0>.<%' 1'' <' B1.>' ?#?+< 0>D' C@ P ,<%.1#?' C@<.<C+>.!' %>??' =%11BE!' <0D' <%+@1#=@' '>.C>' 01+' ?1' '>.1C 1#?!' 01.' ?1' D>C D>D%E' +.<= C<%' 0' +@> .' <?A>C+' <?' +@>' %<++>.' @>' $<%%<D?' 1'' +@>' D!' @1JP >,>.!' @<,>' B<0E' A1 0+?' 0' C1BB10' J +@' +@>' $1.D>.' A1>+.E' +@>' ?<B>' '.>>' <0D' C1.D <%' B<00>.!' +@>' ?<B>' %1,>' 1'' B % +<.E' >KA%1 +!' .>% >,>D' $E' <' C>.+< 0' +10>' 1'' =>0>.1#?' =<%%<0+.E!' <0D' <CC1BA<0 >D' $E' <' ?+.10=' >KA.>?? 10' 1''0<+ 10<%' '>>% 0=

@>' .>?>B$%<0C>' $>+J>>0' +@>' B 0?+.>%?E' 1'' +@>' +J1' C1#0+. >?' ,<0 ?@>?!' @1J>,>.!' <?' J>' <AA.1<C@' +@>' 11.?@' $<%%<D?' @>' 11.?@' J<.?' @<D' <%J<E?' <''1.D>D' <$#0D<0+' +@>B>?' 1'' 0+>.>?+' '1.' +@>' <?+P % <0' B#?>L' $#+' +' J<?' 01+' + %%' +@>' '<%%' 1'' +@>' C<A +<%' +@<+' +@>' ,>.E' '1#0+< 0?' 1''?10=' J>.>' $.1H>0' #A!' <0D' +@1?>' $><#+ '#%' $<%%<D?' J>.>' A.1D#C>D!' J@ C@' ?>>B' % H>' +@>' >C@1>?' 1'' D>A<.+>D' =%1.E' % 0=>. 0=' .1#0D' +@>' .# 0?' 1'' .<0<D<' 0C1BA>+>0+' <?' +@>?>' A >C>?' B<E' $>' <?' @ ?+1. C<%' .>C1.D?!' +@>E' <.>' D1#$+%>??' ?#'' C >0+%E' +.#>' +1' B<00>.? T' @>E' A.>?>0+' <' B1?+' .>B<.H<$%>

' BA 1' A ' , % C' B 5', ' ' A%.' 5' A,1',)'%' ,1,%' 5, (; % ' C',)5 4 5'0 '%)'%(2$%,) ; ,)' .., A' 1C 0 X',)' A,' S % ' %)('B, A' A '3 3$%' 1,) C' 0' A' A%14%K 3$4, A 5' 0' $ 3 !) % C' %' C %' %0 ' A' %4 .' T' '@<,>' <%.><DE' 01+ C>D' +@>') 'B%' B ,)! 0?#'' C >0CE' 1'' +@>' '+1' <#+@>0+ C' @?+1.E' 1%' ' A' 6 ! 01+>+M' E' C10C%#?10?' +@>.>' @<,>' $>>0' C10' .B>D' $E' .' ., 0=! -J@1?>' .>?><.C@>?

5/&!/'4 0(%d*/ ('45/8(8%' '! 60*()*/84 ()0!/08/*4)&45/ .(6/04*504(!:.(' !')'.'' 0)/0 $/!/C ./ :4' 95(0/ 9(!?%)./! 45/44/ (' ' 07

C1B$ 0<+ 10‘ 1’‘ 01+‘ B>.>%E‘ +@>‘ >K+>. 1.‘ '1.B?!‘ $#+‘ +@>‘ 01$%>‘ ?A . +‘ 1’‘ #.1A><0‘ C@ ,<%.E!‘ J +@‘ +@>‘ =1.P =>1#?0>??‘ <0D‘ >''>B 0<+>‘ %#K#.E‘ 1’‘ +@>‘ <?+‘ @>‘ A1>B?‘ <.>‘ ?>%D1B!‘ % H>‘ +@>‘ 0=% ?@!‘ D ''#?>‘ 1.‘ 0‘ <0‘ >K+>0D>D‘ '1.B ‘ @>E‘ <.>‘ $. >'!‘ ?> G 0=‘ ? 0=%>‘ ? +#<P + 10?‘ 1’‘ +@>‘ @ =@>?+‘ A1>+ C‘ 0+>.>?+!‘ <0D‘ ?+. H 0=‘ +@>‘ >E>‘ 1’‘ +@>‘ .><D>.‘ J +@‘ <‘ $. %% <0CE‘ 1’‘ >K>C#+ 10!‘ ?1‘ <.+%>??‘ 0‘ <AA><.<0C>‘ J +@<%!‘ <?‘ +1‘ ?>>B‘ .<+@>.‘ +@>‘ >''>C+‘ W1”‘ <CC D>0+‘ +@<0‘ ?+#DE‘ >‘ <.>‘ +.<0?A1.+>D‘ +1‘ +@>‘ =<E‘ ?><+‘ 1’‘ 11. ?@‘ A1J>.!‘ <0D‘ J +0>??‘ +@>‘ <0 B<+ 0=‘ $#?+%>!‘ +?‘ A1BA‘ <0D‘ +?‘ .>,>%.E‘ A.1%10=>D‘ +1‘ +@>‘ %<?+‘ @1#.‘ 1’‘ +?‘ >K ?+>0C>‘ @>‘ $#%%M' =@+‘ 1’‘ +@>‘ ,<..<B$%<!‘ +@>‘ =.<C>'#%‘ + %+‘ 1’‘ .>>D?!‘ +@>‘ <B1P .1#?‘ H0 =@+?‘ J +@‘ +@> .‘ F#< 0+‘ ? =0 ' C<0+‘ D>, C>?!‘ +@>‘ D<.H‘ V>=. ?!‘ 1.‘ 1B>.>?!‘ <0D‘ +@>‘ %1E<%‘ ?>%'M‘ D>,1+>D‘ $>0C>..<=>?!‘ +@>‘ 11. ?@‘ B< D>0‘ .<D <0+‘ <+‘ +@>‘ +1#.0>E!‘ +@>‘ B110% =@+‘ ?>.>0<D>!‘ +@>‘ ?+1%>0‘ 0+>., >J!‘ J@>.>‘ +@>‘ %1,>.‘ = ,>?‘ ,>0+‘ +1‘ <%%‘ +@>‘ 0P +1K C<+ 10‘ 1’‘ A<?? 10‘ 0‘ +@>‘ $#.0 0=‘ %<0=#<=>‘ 1’‘ .<$ <0‘ B>+<A@1.‘ <0D‘ @EA>.$1%>!T‘ O ‘+@>?>!‘ <0D‘ <

,%‘ 5 ‘ ‘ E%)5 ‘ 5 ‘ ‘ N '>‘ %) % ,)‘ 0 1‘ %)‘ %4,%)‘ , ‘ C‘ 4)(%' ‘ *%.% ‘ (A),(<‘ %‘ (5,‘ BA,(A‘ A%‘ ‘5‘ : %)%5%‘ C‘ % ‘ :$ %‘ 5‘ ,‘ ,)‘ ' 5‘ %5‘ B, A‘ A ‘ *,., ‘ 2$‘ A$. ‘)‘ %K B%‘ ,4‘ 0‘ %. >1)' ‘%)5‘ K 3$4 , A 5‘ %‘ (% %‘ ,)‘ D!‘ !#" &‘ 3)‘ % B%C‘ 0‘ % C‘ A,‘ 1%)(‘ B ,)‘ ,)‘ 3 ‘ 0%, A‘ BA‘ A%. ‘ 3 3%'% 5‘ , ‘ 14 5, 5‘ 1%)C‘ A‘ 5‘ ; 0%4 ‘ 0% ‘%)5‘ B,5 ! A , ‘(; , A‘ 4% %5‘ ,)‘ , ‘ BA ‘ ,)'$ %‘ 5$, C‘ A B . ‘ 1%C‘ 4 ‘ 3% 5); 4 %$ C‘ (14,) 5‘ B, A‘ A ‘ ; 5‘ ,)‘ BA% ‘ A% ‘ ,13 5‘)‘ A ‘ 1%) ,(%)5‘ 3,($ 2$‘ (A% %(; 3 3,(%(, C‘ 0‘ ‘ (%$, $‘ %)‘ ‘ 0‘ A ‘ B @‘ , 0‘)‘ 1%5‘ A, ,%)‘ % ‘ $! ' 1 ,) ‘ , ‘ F 1 C‘ 3 3$ % ‘ $) , ‘ % ‘ : (A,(A ‘ 4%)5‘ ,,! 3‘ 6 D‘ 5!) ' A‘ , ‘ 1 ‘ ‘A%. ‘ %(2$, 5‘ I /! %‘ 5 ' ‘ 0‘ A ‘ A, ,(%‘ (5,‘ L‘ A$‘ ,)‘) ‘ 0‘ A , ‘ 2‘ (%,1 5‘ 0 ‘ , ‘ 4C‘ , ‘ %$ A ‘ % ‘ % ‘ #&‘ B ‘ A%. ‘%‘ , A‘ %5C

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$<%%<D B><?#.> ?C<%%>D! .1%% 0=10 +?=.<C>'#%! 0>=W % =>0+ + J@1?>C10+ 0#>D .>A>+ + 10 ?>>B? $E +? B101+101#? B>%1DE +1 A.1%10= +@> 01+> 1' '>>% 0= 1. = 0<%%E ?+.#CH! ?<DB .<$%E ?# +>D $E +? '%>K $ % +E +1 +@> B1?+ ,<. >D <0D 1AA1? +> >KA.>?P ? 10L <C .C#B?+<0C> J @ U @<? .>C1B B>0D>D +<? +@> 1.D 0<.E B><?#.> 1'D.<B<+ C D <%1=#>

1+@ 0= C<0 $> B1.> <=.>><$%> +@<0 +@> =>0>.<% >''>C+ 1' +@> 11. ?@ $<%%<D?! J@C@ C1B$ 0> +@> >%>=<0C> 1' < . A>.' A>. 1D 1' % +>.<+# >! J +@ +@> 0<+#.<% ?'.>>+0>??? <0D ? BA% C +E! ?<,1#. 0= ?1B>P + B>? >,>0 1'+@> .#D>0>??! 1'<A. B + ,> <=> @> . B>. +? @<,> .< ?>D +@>B +1 < ?1.+ 1'C%<?? C<% D =0 +E

)*% ,,%). ,0,(%,)',) A 3 (%',) A 3)' 5 ; 3 ,,) 0 A AC1 0 F; %13 BA,(A, BA C4 B 5 0 1 A 3%), A %4 < BA $3 , ($,.%,))%$ % C %00 (5 A $)0 1 5 , % $ 0 A ,) ,'A4 $ %)5 A $'A) (A%)) 1 4., $ C A%) , 3 3$% 1,) C! Q A & !#, %' AC1 1%5 4C$),0 1, C 0 A . B B, A $ 0)(A ( ) ;)%) 4 A ' $% AC1 BA,(A 4%,) ,) A $ 3 %) , ; % $, 5, ,) '$, A 5 ,) 3%,) 4C A 1 & !#' A$ A 0 $ 0 B,)' B 5 %@) % %)5 1 0 1 %' 3%), A 4% ; %5 % ( ) ($,. & !#& # 3 ># "3 2)' A, F%13 A B % C %4 AC1 % A $'A A, ,) ,) .%,%4 , 1 ; ,1 0% ,)') A %) 3)$ > ,1%%)5 A 0,)% C %4 !P) ',0 ! 3%)! 33! D 6!D I!X A ,'%B, 5 % 1 5C,) A !#' %)5'%' %(0$ 1 . 1) (1,)' 1 BA %, , 5 4 B,F '$% AC1 %)5 4%)@ . BA,(A B $5 1%@ , ,) 5$(; ,) . C 5 , %4 4$) . C 0 %,4 ,) $ B) %) '$%' !)% 13 0 A @,)5A% 4) 1%5 4C%(. B , ,) A 3 (,. ., B! PE !, .! % ! !X 0 , A% 0%, 5 , , 0 1 A ,13 5,1) 3) 5 4C A %) '$%' BA,(A A%)) % C A %1 %1 $) 0. B 1,)%,)) 0 ,13 $),; 0 1 . B $)5 % % A 3%;), A< A 5 $4 1,)%,) A B . 0,, 0 ' %(%)5 4 %$ C ,) A *% ,,%) % 1) 3 ; A%3 0 1 A 00 (0 % (,%; ,) % A %5 '' %, ,) A)' , A!

0‘ A< 0!‘ <0D‘ @<,>‘ %>D‘ +1‘ +@> .‘ C#%+ ,<+ 10‘ $E‘ <‘ @ =@>.‘ 1.D>.‘ 1’‘ J . +>.?!‘ <0D‘ D1J0‘ +1‘ <‘ ‘<.‘ %<+>.‘ A>. 1D!‘ +@<0‘ 0‘ <0E‘ 1+@>.‘ C1#0+.E‘ 0‘ #.1A>‘ @>‘ B1?+‘ ?#CC>??‘#%‘ ?A>C B>0?‘ 1’‘ +@ ?‘ B +<+ 10‘ B<E‘ $>‘ <?? =0>D‘ +1‘ +@>‘ ><.%E‘ A<.+‘ 1’‘ +@>‘ ?>,>0+>>0+@‘ C>0P +#.E‘L‘ $#+‘ +@>‘ <=>‘ J<?‘ +11‘ %<+>‘ +1‘ >0<$%>‘ +@>‘ <.+ ?+!‘ J +@‘ <%%‘ @ ?‘ ?H %%!‘ +1‘ ?> G>‘ +@>‘ +.#>‘ C1%1#. 0=‘ 1’‘+@>‘ <0+ F#>‘ +‘ ?‘ BA1?? $%>!‘ <+‘+@ ?‘ A>. 1D!‘ +1‘ <?C>.+< 0‘ +@>‘ <#+@1.?‘ 1’‘ +@>?>‘ ,>0>.<$%>‘ %E. C?!‘ 01.‘ C<0‘ +@>‘ >K<C+‘ + B>‘ 1’‘ +@> .‘ A.1D#C+ 10‘ $>‘ 01J‘ D>+>. B 0>D‘L‘ <%+@1#=@!‘ <?‘ +@> .‘ ?#$">C+?‘ <.>‘ C@ >‘%E‘ +<H>U‘ ‘.1B‘ +@>‘ %<?+‘ D<E?‘ 1’‘ +@>‘ A<0 ?@‘ .<$ <0‘ >BA .>!‘ +@>‘ %<.=>?+‘ A<.+‘ 1’‘ +@>B‘ J<?‘ A.1$<$%E‘ A1?+>. 1.!‘ <0D!‘ <?‘ +@>E‘ J>.>‘ A. 0+>D‘ 0‘ C1%%>C+ 10?‘ <+‘ +@>‘ $>= 00 0=‘ 1’‘ +@>‘ ? K+>>0+@‘C>0+#.E!‘C1#%D‘ 01+‘ @<,>‘ $>>0‘ %10=‘A1?+>. 1.!‘ +1‘ +@>‘ C<A+#.>‘ 1’‘ .<0<D<‘ 1J‘ ‘<.‘ +@>E‘ B<E‘ $>‘ .>‘>..>D‘ +1‘ +@>‘ C10F#>.>D‘ 11.?‘ ?‘ #0C>.+< 0‘ <0E‘1’‘+@>?>‘J.1+>‘<0D‘?A1H>‘+@>‘ <?+ % <0‘ J +@‘ >%>=<0C>!‘ <0D‘ +@>.>‘ ?‘ 01+@ 0=‘ BA.1$<$%>‘ 0‘ +@>‘ ?#AA1? + 10‘ +@<+‘ +@>E‘ ?@1#%D‘ ?>>H‘ ?1B>‘ ?1%<C>‘ #0D>.‘ A.>?>0+‘>, %?‘ 0‘ +@>‘ ?A%>0D D‘ , ? 10?‘ 1’‘+@>‘ A<? +‘ @>‘ $#%H‘ 1’‘ +@ ?‘ A1>+.E!‘ @1J>,>.!‘ J<?‘ 0‘ <%%‘ A.1$<$ % +E‘ +@>‘ C.><+ 10‘ 1’‘ +@>‘ A<0 <.D?‘ +@>B?>%,>?!‘ 0<+#.<%%[‘ <++.<C+>D‘ $E‘ +@>‘ A C+#.>?F#>‘ C .C#B?+<0C>?‘ 0‘ +@>‘ C@<.<C+>.‘ <0D‘ C10D + 10‘ 1’‘ +@>‘ C10F#>.>D‘ 0<+ 10!‘ +1‘ 0,>?+‘ +@>B‘ J +@‘ A1>+ C‘ 0+>.>?+

@>‘ 11. ?@‘ ‘ ‘1.+#0<+>%E‘ <AA><.>D‘ <‘+>.‘ +@>‘ 0+.1D#C+ 10‘ 1’‘ A. 0+ 0=‘ 0+1‘ +@>‘ A>0 0?#%<!‘ ?1‘ +@<+‘ +@>E‘ J>.>‘ ?>C#.>D‘ <‘ A>.B<0>0+‘ >K ?+>0C>!‘ 0P ?+><D‘ 1’‘A>. ?@ 0=‘ J +@‘ +@>‘ $.><+@‘ +@<+‘ B<D>‘ +@>B

% H>‘ ?1‘ B<0E‘ 1 ’‘+@> .‘ A.>D>C>??1.?‘ @ ?‘ B ?’1.+#0>!‘ J@ C@‘ <++<C@>?‘ +1‘ ?1‘ B#C@‘ 1’‘ A1A#%<.‘ A1>+.E‘ 0‘ <%%‘ 0<+ 10?!‘ ?‘ 01+‘ BA#+<$%>‘ +1‘ <0E‘ 0?>0? $ % +E‘ 0‘ +@>‘ A<0 <.D?‘ +1‘ +@>‘ >KC>%%>0C>‘ 1’‘ +@> .‘ 1J0‘ @%>0‘ 1’‘ B1.>‘ >.#D + 10‘ +@<0‘ +<?+>‘ B<E‘ @<,>‘ @>%D‘ +@>B‘ % =@+‘ 0‘ C1BA<. ?10‘ J +@‘ B1.>‘ 1?+>0+<+ 1#?‘ <0D‘ %><.0>D‘ A.1D#C+ 10?‘ @ ?‘ '<+>‘ @<?‘ $>'<%%>0‘ +@>B‘ 0‘ 1+@>.‘ C1#0+. >?‘ +@<0‘ A< 0 T‘ #+‘ A>.?10?‘ 1’‘ ' 0>.‘ A1>+ C‘ '>>% 0=!‘ <0D‘ B1.>‘ >0%<.=>D‘ ?A . +‘ 1’‘ C. + C ?B!‘ @<,>‘ >?+ B<+>D‘ +@>B‘ <?‘ <‘ B1?+‘ >??>0+ <%‘ <0D‘ C@<.<C+>. ?+ C‘ A1.+ 10‘ 1’‘ -2<?+ % <0‘ % +>.<+#.>‘ #C@‘ J<?‘ +@>‘"#D=P B>0+‘ 1’‘ +@>‘ =.><+‘ 1A>‘ D>‘ >=<!‘ J@1‘ <'+>.‘ >KA<P + <+ 0=‘ 10‘ +@>‘ >K+.<1.D 0<.E‘ C1BA<??‘ <0D‘ ?J>>+0>??

Q‘ A,‘ 1%C‘ 4‘ ,‘ 0$ A‘ ,)0 5‘0 1‘ A‘) $‘ 0%‘A$; 1 $‘ %,,(%‘ 5‘ #‘,)‘ BA,(A‘ A‘ B , ‘ ,13 ‘ A‘ +$,(‘ 0‘ 3 ‘)‘ A‘ A %5‘ 0‘ A‘ B% 1‘ 0‘ %, ‘ 3 ‘ BA‘ A%.‘5 5‘ A‘%)(,)‘ , 1 ‘ 0‘)'‘ A‘ *,5‘ A‘ % % ‘ A‘ :)G% G‘ ‘(4 % ‘ A‘ :%)>‘ G$‘ %)5‘ 45 %1%,‘ %)5‘ A‘ 0%) % ,(%‘0%4 ‘ 0‘A‘ !

8‘ %) %‘N%C5%‘C‘ 5% ,0%‘ %) %‘ %'$%‘C‘ % %F%‘ %) ‘ G% 2$‘C‘%) ‘ 5$ (‘ %) ‘ :%G$‘C‘ 4)%1%‘ %) ‘%2$,G‘C‘1% %‘ %) ‘%1%CG%‘C‘%1%%0%‘ %) %‘ 13 , %‘C‘3$1%‘ %) %‘(,0%‘C‘1 5% % ‘ %) %‘ 3 ,%‘ %! ‘)‘.%)5 , %‘C‘%5% '% ‘ %) ‘1 ‘C‘%) %‘1 %‘ 1,$ %C‘ ,) ‘1‘(%) %)![

‘ 0) ‘ ‘8) ,(‘ ‘ %)(A ‘C‘ ‘5‘ % %‘ 2$‘ ‘5 ‘C‘2$‘ 5 *,5‘V‘ %) ‘ ,5‘)‘' ,%‘%) %‘V‘),)'$)%3$1%‘%‘4$ %‘),)'$)% $%‘%‘(%) %‘V‘ ?$,(,%‘ 3 ‘+$,(,%‘ .)'%5 ‘%C ‘ %)T%‘ ( ) % % ‘ , (![

!‘?A))K‘ 3,),)‘% ‘B ‘ @) B)‘,)‘ '%5‘ ‘A,‘5 3% ; 1)‘0)', A‘, % $ <‘BA,(A‘ 4C‘A,‘ ,5,($ $‘3% 5, ‘A‘ $(; (5 5‘0 ‘%‘ ,1 ‘,)‘A B,)'‘,) ‘ A‘ A%5 ‘ ‘,)‘ A‘ %)'$%'‘ 0‘ A,‘ %51, ,)'‘4, ' %3A ‘ 1%5‘ 3 0 (C‘( ) 13 ,4 ![% (A‘B, A‘ ,@‘3 5%) C‘ 5‘A,‘A 3 ‘ 0‘0%1 ‘)‘A,‘ % ,)‘ 3,(‘%)5‘'%.‘%B%C‘A,‘ C ,(‘%‘%1 ‘ ‘4% %5> ,)' !‘ , C‘5 (,5,)'‘)‘$ ‘3 ,); (,3 ‘> 0‘% ‘A%‘ . 5‘4 A‘ A ‘5 (, ,) !

1'' +@> <0D +? <D<A+<+ 10 +1 +@> @ =@>?+ ?#$">C+?! C1B B>0D? + <? J1.+@E 1'' <%% >?+ B<+ 10 '1. +? A>C#% <. 0<+ 10<% C@<.<C+>. T @> B1D>.0 A<0 ?@ J . +>.? @<,> <D1A+>D < ? B %<. +10> 1'' C. P + C ?B! 0? ?+ 0= 10 +? ?+#DE <? >??>0+ <% +1 < C1..>C+ <AA.>C <+ 10 <0D C1BA.>@>0? 10 1'' +@> =>0 #? 1''+@> %<0=#<=> '

@> <?+ % <0 $<%%<D? J>.> ' .?+ A. 0+>D 0 +@> <0C 10>.1 >0>.<% 1'' >.0<0D1 D>% <?+ %%1! 8 @>E J>.> ' .?+ 0C1.A1.<+>D 0+1 < ?>A<.<+> J1.H $E >A#%,>D<! #0D>. +@> 0<B> 1'' 1B<0C>? <C<M D1? D> ?+1. <? 0+ =#<?! 0+#>.A <>! 88 / 0C> +@<+ A>. 1D! +@>E @<,> A<??>D 0+1 .>A><+>D >D + 10?! <+ @1B> <0D <$.1<D! >?A>C <%%E 0 >.B<0E! J@>.> +@>E @<,> $>>0 %%#?+.<+>D $E <$%> C. + C? =01P .<0C> 1'' +@> . <#+@1.?! <0D 1'' +@> >.< 1'' +@> .

W '$) 2$,)2$ %) % (% , % 5 % < C) ,) % < %) 4,) A% (%3%( ) 5 F3 ,> 1, C5 (% % 2$% 2$, ( )(3 ( )0%(, 5$ G$ % 3 5 3 > '$, 5% ' %. % %((,)5)$1 > 1%! C %)5 . > % 3%) 2$ 3))$)$> ,5, 1%)% $ % ')) 1 3$ 5 3 $%5, 2$) 1 % 5,') 5 5% ,1%(,)![P 4 % $ % 1! ,.!3! / ! ' !X) %) A 3%(A 0,) C C A 1 U ,%5 B, A; $ % 8 1 !Z

 % 1)'' A A); (1,% ,(%)5%), 1% 5 (, ,(, 1 0 1%)5 G%)5 #$,) %)%! > ,% (',5% 1!F.,! '! J ,% (! *% %)!) ! % ! D! ,(!), ,4! 8, 3! .! 1!,,! 3! ! J A 3%;), A %) % 0 $ B @ A%.) ,(5 A 3 ,)(,3% 8(; (,) %)5 % , 5, ,) Z 0 A (#& A, ,',)% 5, ,) 0 3$. 5% A% (%3 5 A ,) ,(! 8, 5 , ! 3%) % 33! / > I! é : ,1 1 33,) ' 8 ; 5 \(! A % 3 A% 1 %(5 % (,) 0 A *,5 4% %5 (A) ',(% C % %) ' 5 %)5 %) % 5B, A 1,)) ,1; 3 ,(, C%)5 3, , ,0) B, A A (3 $ 0,5 , C$ $% C%,1 5 % 4C A : 1%) ! A, %1 1 ,(A 9 @ 4%)5 ,,,! 5! 9,) I !

A.1D#C+ 10!' @<?' A.>,>0+>D' <0E' <++>B A+' <+' >K<C+' C@.101%1= C<%' <..<0=>B>0+L' <' C .C#B?+<0C>' .>0D>.>D' B1.>1,>.' 0><.%E' BA1?? $%>' $E' +@>' A>.A>+#<%' B1D P ' C<+ 10' J@ C@' +@>' 1. = 0<%' ?+E%>' 1'' +@>' B1.>' <0C >0+' $<%%<D?' @<?' >KA>. >0C>D' 0' +@> .' +.<0? + 10' +@.1#=@' ?#CC>?? ,>T' =>0>.<+ 10?L' ?1' +@<+!' J +@' 10>' 1.' +J1' >KC>A+ 10?!' 01' ><.%>.' D<+>' ?@1#%D' A.1$<$%E' $>' <?P ? =0>D' +1' +@>' 1%D>?+' 1'' +@>B!' 0' +@> .' A.>?>0+' '1.B!' +@<0' +@>' ' '+>>0+@' C>0+#.E T' 01+@>.' ?E?+>B' 1'' C%<?P ? ' C<+ 10' @<?' $>>0' <D1A+>D!' 1'' D ?+. $#+ 0=' +@>B' <CC1.D 0=' +1' +@> .' ?#$">C+?L' <0D' 0D>A>0D>0+' C1%P %>C+ 10?' <%?1' 1'' +@>' ?>A<.<+>' D>A<.+B>0+?!' <?' $<%%<D?' 1'' +@>' D!' 1'' +@>' J>%,>' 5>>.?!' +@>' 1. ?C1' $<%%<D?!' <0D' +@>' % H>!' @<,>' $>>0' .>A><+>D%E' A#$% ?@>D' $1+@' <+' @1B>' <0D' <$.1<D '

L' % 1,) ' 4 %' $1% ' 33!' D ' D ! J' %,)' ( ); ,5 ' ,%')) 'A%. ' (1 '5 B)' ' $ ' ,)' A ,' ,',)%' ($1 ' 0' %)' % , ' 5% ' A%)' ? A)' !K' ,') ' A '0, ' A% 0' 0' A ' 0,0) A' ( ) $ C!P 4 % '3!' ID!K' A ' 3%), A' %) % ' 0' $>' B @' %) (,4 '%' # ; % ,) '' ' A ' *,5 0 1' A ' %; A ' '%)G%%)5' ,) ' 3$; 3 ,) '' ' FA,4,' A '3 ,1, ,. ' $)($3 5' 5,(,)' 0' A ' A, ;) A' ( ) $ C!' %,. ' (, ,(' % ' 0' ($ ' A ') C') ' (1; 3)' ' 2$,)' 0' A, ' < 4$' ' A ' F3 ,)(5' C ' 0'%' 0 ,') ' A ' C ' 0' A, ' 4% %5' B $ 5' 1' ' 14 ' 1$(A' ' A%' ')$,) ' 3 (,1)' 0' A '. ,0,(%,)' 0' A '3 (5; ,)'' %' ' A '3 1' 0' A ' *,5

A%)' A ' (13 , ,)' 0' A '0,0;) A'%)5' ,F) A' ( ) $, ! +' @' A. 0C A%' 1'' A@ %1?1A@ P C<%' <..<0=>B>0+!' '' +' B<E' ?1' $' C<%%>D!' ?' A#.?#>D' ?+. %%' '#.+@>.' 0' +@>' %<+>?+' A<0 ?@A#$% C<+ 10?' 1'' +@>' #& J@>.' +@>' 11.P ?@' B 0?+.>%?E' ?' >B$1D>D' 0' < ?>A<.<+>' ,1%#B>!' <0D' D ?+. $#+>D' J +@' .>'>.>0C>+1' +?' +1A C?' @ ?' ?E?+>B' ?' +@>' B1.>' A.<C+ C<$%>' J +@' +@ ?' C%<?? 1'' $<%%<D?!' ? 0C>' +' '<.' >KC>>D?' 0' 0#B$>.' <0E' 1+@>.' - >>' 1B<0C>.1' D>' 1P B<0C>?' 1. ?C1?!' A1.' 10' =#?M +0' #.<0*

A ' 1%)(' ' A%. ' $ 5' , ' A ' %)(,)' 5, ,)' 0' 5,)% 5 ' *%13 ' ! ' , '5,.,5 5' ,) '),) ' 3% ' A $'A' , ' , ') ' % C' ' ')' BA%' 3 ,)(,3 ' ,)(' A ' 3 5$(,) ' 0' 1

A

@> @ =@>. <0D >D#C<+>D C%<??>? 1 ' +@> 0<+ 10
J>.> 01+ 0?>0? $%> +1 +@> A1>+ C ?A . + J@ C@ D.>J
'1.+@ ?#C@ >KF# ? +> B 0?+.>%?E '.1B +@> $1DE 1 '+@>
A>1A%> L 0D>>D <?+ % <0 A1>+.E $1.> +@> ?<B> A<+. P
C <0 ?+<BA +@.1#=@ +@> J@1%> 1 ' +@> A.>?>0+ .> =0
J@ C@ @<D $>>0 BA.>??>D 10 + 0 +? 0'<0CE
1.+#0<+>%E +@> 0>J <.+ 1 'A. 0+ 0= J<? >BA%1E>D
@>.>! <? 0 +@> C<?> 1 ' +@> +1 <..>?+ +@1?>
'#= + ,> ?<%% >? 1 ' B<= 0<+ 10! J@ C@ 0 1+@>. C1#0P
+. >? J>.> A>. B ++>D! '.1B J<0+ 1 '+@ ? C<.>! +1 A<??
0+1 1$% , 10 L <0D 1. C1%%>C+ 10 1 ' %EP
. C?! J>.> A#$% ?@>D! >B$1DE 0= +@> A.1D#C+ 10? 1 '
+@ ? .> =0 <0D +@<+ 1 ' /1@0 ! +@#? $. 0= 0= #0D>.
10> , >J +@> A1>+ C C#%+#.> 1 '+@> ' '+>>0+@ C>0+#.E
@> ><.% >?+ C<0C 10>.1 A. 0+>D J<? <+ <.<=1??<!
0 6:7 + C1BA.>@>0D>D +@> J1.H? 1 ' >0<! <0M
. F#>! <0D ? K 1. ?>,>0 1+@>. $<.D? 1 '%>?? 01+> T

33 , 5% %)5) $ % 4 $'A,) +$F %3 , ,)! A ((,) ( ) %,)) % %' A $; %)5 4% %5 BA,(A A B . 0% 0% A 0 A) ,)$1; 4 3 . 5 % 1%C % , C 4)4C 0)(A (1; 3, % ,) ! 9A) A, , %55 5 A ( ) ,5 % ,) 0 A % ')$14 BA,(A ,) ,4C ' ,5 5,) 4 .,) B, A $. (1,) ' A 3) 1%C 0 1 %') ,) 0 A ,11) 1% 0 A A$14 C ,(BA,(A 0 % 5 %1) ' A (1; 1) 3 3 0 3%,) < %)5 B A% 4 A 5, 3 5 B)5 % A 3 $5 %)5 (A,; .% $ 4 % ,) ' BA,(A 1% @

.) A 3 % %) C 0 %) % ,) BA 4 % A A . C %, 0 ; 1%) , ( )'!
Q A , 0 A, B @ B%
* 3 5 E, % *A , , 5 % *)% ( ) % % ,) C 5 % E),(% ( ) % $ ((,) 5)$ 5 1 ! % , %) '$,% , ' G 5)$ %) % ( ) % 4 % 1$(A 3 . (A % ![( )($5 B, A A 0 B,) ') , (Y $ % 3) 4 % 13) %5%) % ,) , ') * ,$5%5 5 N% %' G% 5 %') 3 ,)5$,% F3) % 5 %$ 8$ $ 5 *) %)(,% 1%)! / 5,% 5 ., 1 4 DH !Z P)5 G C3 ' ! 3%) % 33! D! !X

'<.' B1.>' C1A 1#?' C1%%>C+ 10' J<?' B<D>' $E' >.0<0D1' D>%' <?+ %%1!' <0D' ' .?+' A#$% ?@>D' <+' <%>0C <!' 0' 8 !' #0D>.' +@>' + +%>' 1"' Q' <0C 10>.1' >0>.<%? 0C>' J@ C@' A>. 1D' +' @<?' A<??>D' 0+1' .>A><+>D' >D + 10?' @ ?' C1BA %<+ 10' ?' C>.+< 0%E' B1.>' C.>D +<$%>' +1' +@>' 0D#?+.E' 1"' +@>' <#+@1.' +@<0' +1' @ ?' D ?C. B 0<+ 10' 1.' A1J>.?' 1"<..<0=>B>0+' 0D>>D!' 0' +@ ?' %<?+' .>?A>C+' +' ?' ?1' D>'>C+ ,>!' +@<+' +' J1#%D' <%B1?+' ?>>B' +1' @<,>' $>>0' A#+' +1=>+@>.' '1.+# +1#?%E!' <?' +@>' A >C>?' C<B>' +1' @<0D' '%<.=>' A1.+ 10' 1"+@>' <#+@1.?' <AA><.' +1' @<,>' $>>0' A>.?10?' 1"' .<0H!' <' C .C#B?+<0C>' +1' J@ C@' A>.P @<A?' +@>E' J>.>' 0D>$+>D' B1.>' +@<0' +1' <0E' A1>+ C' B>.+' '1.' <' A%<C>' 0' +@>' B ?C>%%<0E!' J@ C@' B =@+' @<,>' $>>0' D>C D>D%E' 0C.><?>D' 0' ,<%#>' $E' $> 0=' D B 0 ?@>D' 0' $#%H T

@>' 4 9 ' (' ' J +@' J@ C@' +@>' C1%%>C+ 10' 1A>0?!' <.>' 10' +@>' J@1%>' +@>' '>>$%>?+' A1.+ 10' 1"' +L' J>' D ?C>.0' 010>' 1"' +@>' 0?A .<+ 10' <0D' %E. C' =%1J' J@ C@' J>.>' +1' @<,>' $>>0' <0+ C A<+>D' '.1B' +@>' D>M

<AA><.?+@>.>' J>.>'+J1'1.'+@.>>' 1+@>.'C<0C 10>.1?C1BA%>D! 010>' 1"J@C@!' @1J>,>.!' J>.>' <DB +P +>D' +1'+@>' @101#.?' 1"+@>' A.>??' - 1#+>.J>H!' +' ?A<01%<!+.<D! 01+<*' @>' %><.0>D' <?+.1!' ?1B>' ''+E'E><.?'?0C>!'A#$% ?@>D' <0' <0<%E?'?!' J+@' C1A1#?' >KP +.<C+?' '.1B' 10>' 1"+@>?>' B<D>' $E' <>0<!'+@>' />J ?@' A@E?'C<0' 1"/1@0' !'<C1AE'1"J@C@' >KP ?+>D' 0'+@>'.1E<%'%$.<.E'1"+@>' ?C#.<%' $' S<$' ?A<01%' +1B' 'A' 7 8!'><'?>F Q'*%)(,) ' :) % ' 5!');

. ' 6/ ' 3% ,1!' %,)' A%' ',.)' %' , ' 0' A' 1)' 0' %)@' BA' ( ) ,4$ 5' ' A, ' 1, (%)C' ,' ( ) %,) ' A')%1 ' 0' A'A,'A ') 4, ,C' 0' 3%,)!' P ,'! 5 ' % ' 3%>' ,, ! 4 % ' 1!',! 33! I6' I !K' *% , K' *%)(,) ' 3% 5' A $'A' . %' 5, ,) ' A' % ; ' 0'BA,(A'%33 % 5',)' 89 ' %' (% % '$ ') '), C' (13 ' 0' A'5,00)' 3%), A' *%)(,) ',)' $ B @' , ; % !' 3%) %' %5!' 3!' /!

,1#+!‘ >0+@#? <?+ C‘ A<0 <.D‘ >‘ B>>+‘ J +@‘ <0<P =.<B?‘ 10‘ +@>‘ .= 0!‘ =%1??>?‘ 10‘ +@>‘ .>>D‘ <0D‘ 5<+>.P 01?+>.!‘ C<0C 10>?‘ 10‘ . = 0<%‘ 0!‘ <0D‘ +@>‘ % H>‘ #0A.1P B ? 0=‘ +1A C?!‘ <%%‘ D ?C#??>D‘ 0‘ +@>‘ B1?+‘ $<%D‘ A.1?< C‘ B<00>.!‘ J +@‘ <$#0D<0C>‘ 1’’ <+ 0‘ A@.<?>‘ C. A+#.<%‘ <%%#? 10!‘ <0D‘ C1B B10MA%<C>‘ A.>C>A+!‘ #0>0% ,>0>D‘ $E‘ <‘ ? 0=%>‘ ?A<.H‘ 1’’ +.#>‘ A1>+ C‘ ’ .>!‘ <0D‘ A.>?>0+ 0=‘ <%+1=>+@>.’ <‘ ’<..<=1‘ 1’’+@>‘ B1?+‘ ’<0+<?+ C‘ A>D<0+.E

@>‘ % =@+>.!‘ >?A>C <%%E‘ +@>‘ <B<+1.E‘ A1>B?!‘ <.>‘ B#C@‘ B1.>‘ ?#CC>??’#%%E‘ >K>C#+>DL‘ <0D‘ +@>‘ A. B + ,>‘ ’1. B?‘ 1’’+@>‘ 1%D‘ <?+ % <0‘ ,>.? ’ C<+ 10‘ <.>‘ D>,>%1A>D‘ J +@‘ C10? D>.<$%>‘ ,<. >+E‘ <0D‘ $><#+E‘ B10=‘ +@>‘ B1?+‘ <=.>><$%>‘ >’’#? 10?‘ 0‘ +@ ?‘ J<E!‘ B<E‘ $>‘ 01+ C>D‘ +@1?>‘ 1’’ >=1‘ 1A>G‘ D>‘ <.1!‘ +@>‘ B ..1.‘ 1’’=<%P %<0+.E‘ ’1.‘ +@>‘ E1#0=‘ C<,<% >.?‘ 1’’ +@>‘ + B>!R‘ +1‘ $1.P .1J‘ +@>‘ >0C1B #B‘ 1’’ <‘ C10+>BA1.<.E‘ @>.>‘ <.>‘ ’>J‘ ,>.?>?‘ 0‘ +@>‘ C1%%>C+ 10‘ C1BA1?>D‘ J +@‘ B1.>‘ ’<C % +E‘ <0D‘ =.<C> T‘ B10=‘ +@>‘ B1.>‘ >%<$1.<+>‘ A >C>?!‘ >=1‘ D>‘ <0‘ 5>D.1 ?‘ >?A.>C 1‘ D>‘ %<‘ 1.+#0<R‘ B<E‘ $>‘ D ?+ 0=# ?@>D!‘ 01+‘ ?1‘ B#C@‘ ’1.‘ <0E‘ A1>+ C‘ +<%>0+‘ J@ C@‘ +‘ >K@ $ +?!‘ <?‘ ’1.‘ +?‘ B>.C#. <%‘ <0D‘ ?1B>J@<+‘ ?<.C<?+ C‘ +10>‘ 1’’ ?>0+ B>0+!’’‘ @>‘ ? B %<. +E‘ 1’’ ?#$">C+‘ B<E‘ ?#==>?+‘ <‘ A<.<%%>%‘ $>+J>>0‘ +‘ <0D‘ +@>‘ +<% <0‘ A1>+‘ # D ?‘ C>%>$.<+>D‘ 1D>‘ 10‘ 1.+#0>L‘ <0D‘ +@>‘ D ’’>.>0+‘ ?+E%>?‘ 1’’ >K>C#+ 10‘ B<E

T‘ <0C10>.1‘ >0‘ 33!‘ 4 ‘ O‘\ 4: O I#0C#<=‘D>‘ , >D1!‘ +‘ *%)(,)‘ :) !‘ 33!‘ 84O‘ ‘ 1 ‘ 1 %’ ‘,)0 1%,)‘ 0‘ A, ‘ 3)‘ , ‘ ’,.)‘ 4C‘ ,(!)), ‘BA ‘4, ’ %3A,(% ‘) ; ,(‘ 1%C‘4 ‘ 0)‘ (A% ’ 5‘ B, A‘ 5 0,(,)(C‘,)‘ (A) ’,(% ‘ 5% % ‘ %‘ (, ($1 %)(‘3 A%3 ‘)%. ,5; %4 ‘ 0 1‘ A ‘ 4 ($, C 0‘ A , ‘ $4+ (! ,4 , A (% 8, 3!‘E‘ > $ ‘ 1!‘ ,,!‘ ,4!‘F!‘ (%3!‘ .,!

A>.@<A?‘ $>‘ +<H>0‘ <?‘ 0D C<+ 0=‘ A.>++E‘ ‘< .%E‘ +@>‘ D ?P + 0C+ ,>‘ A>C#% <. + >?‘ 1’‘ +@>‘ #?C<0‘ <0D‘ 1%D‘ A<0 ?@‘ ?C@11%‘ 1’‘A1>+.E‘ @>‘ +<% <0!‘ 0+.1D#C 0=‘ +@>‘ ’ CH%>‘ =1DD>??‘ 0‘ A>.?10‘ 10‘ +@>‘ ?C>0>!‘ D>?C. $>?‘ @>.‘ +. #BP A@<0+‘ 0<.C@‘ 1,>.‘ +@>‘ .# 0?‘ 1’‘>BA .>?‘ <0D‘ DE0<?+ >?‘ ’.1B‘ +@>‘ ><.% >?+‘ + B>!‘ 0‘ <‘ ’%1J‘ 1’‘%1’+E‘ D +@E.<B$ C‘ >%1F#>0C>!‘ <D1.0>D‘ J +@‘ <%%‘ +@>‘ $. %% <0+‘ C1%1#. 0=‘ 1’‘ <‘ ?+ B#%<+>D‘ ’<0CE!‘ <0D‘ <‘ @ =% %E‘ ’ 0 ?@>D‘ %<0=#<=>‘ +@>‘ <?+ % <0!‘ 10‘ +@>‘ 1+@>.‘ @<0D!‘ 0?+><D‘ 1’‘ +@ ?‘ ?A%>0D D‘ A>.?10 ’ C<+ 10!‘ D>>A>0?‘ @ ?‘ ,>.?>‘ 0+1‘ <‘ B1P .<%‘ +10>!‘ <0D!‘ DJ>%% 0=‘ 10‘ +@>‘ , C ?? +#D>?‘ <0D‘ ,<0 P + >?‘ 1’‘ @#B<0‘ % ’>!‘ A1 0+?‘ @ ?‘ .>’%>C+ 10?‘ J +@‘ ?1B>‘ C<#?+ C‘ J<.0 0=!‘ 1’+>0‘ C10,>E>D‘ J +@‘ >0C@<0+ 0=‘ ? BA% C +E!‘ $#+‘ J +@1#+‘ +@>‘ %><?+‘ <AA.1<C@‘ +1‘ %E. C‘ >K<%+<+ 10!‘ 1.‘ 0D>>D‘ +@>‘ <’’>C+<+ 10‘ 1’‘ +

@ ?‘ A.10>0>??‘ +1‘ B1.<% G>‘ +@>‘ ?10=‘ ?!‘ 0‘ +.#+@!‘ <‘ C@<.<C+>. ?+ C‘ 1’‘+@>‘ 1%D‘ A<0 ?@‘ $<.D‘ >‘ .<.>%E‘ <$<0D10?‘ @ B?>%’‘ J +@1#+‘ .>?>.,>‘ +1‘ +@>‘ ’.1% C‘ A#>.P % + >?‘ ?1‘ C1B B10‘ J +@‘ +@>‘ ? ?+>.‘ B#?>‘ 1’‘ +<%E!

Y‘ (,, %‘ (‘ (1‘ %‘ 3))%‘ ’ %!
‘0$’’,‘ K G, ‘ ‘))‘ 3 ‘ ((%‘ ’ ,%![

+‘ ?‘ +.#>‘ @>‘ ?‘ 1CC<? 10<%%E‘ $>+.<E>D‘ $E‘ ,>.$<%‘ ?#$+%>+ >?‘ <0D‘ 1+@>.‘ <’’>C+<+ 10?‘ 1’‘ +@>‘ <=>!T‘ $#+

Q‘ A ‘ % ‘ 3 4%4 C‘ 1 ‘ 5, (‘ 3$) ‘ ,)‘ % (AK‘) ,(‘ %) ‘ A%)‘ ,)‘ % ‘ A ‘ *%)(,) ‘ :) % !‘ A ‘ ,‘ %) A ‘@,)5‘ 0‘ &# #‘ A B . ‘ BA,(A‘ A‘ 3%), A‘ 3 ‘ B ‘ 1$(A‘ %55,(5‘4 ,)’‘ A‘ %) 3 , ,)‘ 0‘ A‘ B 5‘,)‘ . C‘.%, C‘ 0‘) ‘ %)5‘ (14,)%,)‘< % ‘ 0 ‘ F%13

Z‘ (5%5‘.$ ‘ .,5 ‘ ‘ .,5%‘.$ ‘ %($ 5 ‘ 2$‘ % ‘5 %($ 5 ‘ ($ 5)‘.$ ‘) ,5 >‘ \(! *%)!‘ :)!0 ‘ EL‘ ‘B%‘ $(A‘ $4 , ‘ % ‘ A ‘ J‘# ! &‘ 3 #&‘ % ‘ * ; .%) ‘ (% ‘ A 1 J A% ‘ %55 5‘ A‘4 %,) ‘ 0‘3 ‘)‘ #$,F !‘ 1!‘,!‘ (%3!‘,!

>,>0' @ ?' % ,>% >?+' ?<%% >?' <.>' <A+' +1' $>' ?><?10>D' J +@'
<' B1.<%!' 1.' ?@<.A>0>D' $E' <' ?<+ . C' ?>0+ B>0+' ?'
D>'>C+?!' 0D>>D!' <.>' 1'' +@>' H 0D' B1?+' 1AA1?>D' +1'
+@1?>' 1'' +@>' +<% <0' A1>+!' ?@1J 0=' +@>B?>%,>?!' >?A>P
C <%%E' 0' +@>' B1.>' >%<$1.<+>' A >C>?!' 0' <' C>.+< 0'
+#B D' ?+<+>% 0>??'<0D' 1,>.?+.< 0>D'>0>.=E' 1''D C+ 10

0' +@>' J@1%>!' 10>' C<001+' ?#.,>E' +@>' <0C 10>.1'
>0>.<%' J +@1#+' ?1B>' D ?<AA1 0+B>0+' <+' +@>' % ++%>'
A.1=.>??' 1''+@>'A1>+ C' <.+' ? 0C>' +@>' .> =0' 1''/1@0' !'
<+' +@>' $>= 00 0=' 1''+@>'C>0+#.E' @>' $>?+' A >C>?' 0'
+@>' C1%%>C+ 10' <.>' 1'' +@<+' D<+>L' <0D' 01' . ,<%' ?#$?>P
F#>0+%E'<.1?>' +1' C1BA>+>' J +@'+@>' B<?C#% 0>' ?+.>0=+@'
1'' >0<!' 1.' +@>' D>% C<CE' <0D' '<?C 0<+ 0=' =.<C>?' 1''
<0+ %%<0<' 0>M' C<#?>' 1'' +@ ?' +<.DE' A.1=.>??' B<E'
@<,>' $>>0' +@>' D .>C+ 10' +1' #+ % +E' B<0 '>?+>D' 0' +@ ?'
<C+ ,>' .> =0!' J@ C@' %>D' ?#C@' <?' @<D' %> ?#.>' '1.' 0+>%P
%>C+#<%' A#.?# +?'+1'C#%+ ,<+>' ?C >0C>!'.<+@>.' +@<0' <$<0P
D10' +@>B?>%,>?' +1' +@>' B>.>' .>,>%?'1''+@>' B<= 0<+ 10

01+@>.' C<#?>' B<E' $>' '1#0D' 0' +@>' .#D>0>??' 1''
+@>' %<0=#<=>!' J@1?>' D>% C<+>' ' 0 ?@' ?' ?1' >??>0+ <%' +1'
+@>' A#.A1?>?' 1''+@>' A1>+!' $#+' J@ C@' J<?' ?1' BA>.'>C+'
<+' +@ ?' A>. 1D!' +@<+' /#<0' D>' %<' 0C 0<!' <' A1A#%<.'
J. +>.' 1'' +@>' + B>!' C1BA%< 0>D' +@<+' @>' J<?' 1$% =>D'
0' @ ?' ,>.? 10' 1'' .= % ?' >C%1=#>?!' +1' C1 0!' <?' +' J>.>!'
<' 0>J' ,1C<$#%<.E!' '.1B' +@>' J<0+' 1'' +>.B?' C1E.U'
?A>0D 0=' J +@'+@>' 1. = 0<%' 0' +@>' 1%D' 10> T' +' J<?

L' E % 2$ G' ,'!5' >' BA,(A' A',13$ 5' ' A' '
,%' *% !' 3!' !' ' A%)' F($,.'%5 3,)' 0' A' %,)'
A% 0'%'( ) $ C' % ' A' %) 5' $3)' % ' $4+ (' 0'5,'), C'%)5'
14 ,' % '(13%,) 5' 0' ,13 %)(!' 4% L' 1!' F,.!'
A'4%)) ' 0' A'*% ,,%)' 33!' D/' DI!

01+' #0+ %' +@>' C%1?>' 1'' +@>' A.>?>0+' .> =0!' J@>0' +@>' 0<+ 10' $>=<0' +1' $.><+@>' <J@ %>' '.1B' +?' +#B#%+#1#?' C<.>>.!' +@<+' +@>' '.# +?' 1'' +@>' A<+ >0+' C#%+ ,<+ 10' J@ C@' +' @<D' $>>0' ?+><D %E!' +@1#=@' ? %>0+%E' >KA>. >0P C 0=!' $>=<0' +1' B<0 '>?+' +@>B?>%,>?U' 0' +@>' BA.1,>D' C10D + 10' 1''+@>' %<0=#<=>!' <0D' +?' <D<A+<+ 10' +1' +@>' @ =@>?+' A1>+ C<%' #?>?' @>' 0+>.C1#.?>' J +@' +<%E!' B1.>1,>.!' $E' 0<+#.<% G 0=' 0>J' <0D' B1.>' ' 0 ?@>D' '1.B?' 1'' ,>.? ' C<+ 10!' <''1.D>D' <' ?C1A>' '1.' +@>' 01$%>.' >''1.+?' 1'' +@>' A1>+!' +1' J@ C@' +@>' 1%D' <?+ % <0' B><P ?#.>?!' @1J>,>.' J>%%' ?# +>D' +1' +@>' J %D' <0D' <.+%>??' B1,>B>0+?' 1'' +@>' A1A#%<.' B 0?+.>%?E!' J>.>' <%+1M' =>+@>.' 0<D>F#<+>

>' B#?+' 01+' D ?B ??' +@>' B ?C>%%<0>1#?' A1>+.E' 1'' +@ ?' A>. 1D!' J +@1#+' ?1B>' 01+ C>' 1''+@>' 1A%<?' 1'' 10' /1.=>' <0. F#>!T' 10' +@>' D><+@' 1'' @ ?' '<+@>.!' +@>' 1#0+' 1''5<.>D>?!' 696 '' @>' >%>=E' ?' 1''C10? D>.P <$%>' %>0=+@!' <0D' ?' ?#?+< 0>D' +@.1#=@1#+' 0' <' +10>' 1'' +@>' @ =@>?+' B1.<% D =0 +E!' J@ %>' +@>' A1>+' %><D?' ?' #A' '.1B' +@>' ,<0 + >?' <0D' , C ?? +#D>?' 1''+@ ?' %1J>.' J1.%D' +1' +@>' C10+>BA%<+ 10' 1'' +@<+' BA>. ?@<$%>' >K ?+>0C>' J@ C@' @. ?+ <0 +E' @<?' 1A>0>D' $>E10D' +@>' =.<,>' ' +>0D>.0>??' A>.,<D>?' +@>' A >C>!' J@ C@' B<E' .>B 0D' #?' 1''+@>' $>?+' B<00>.' 1''5>+.<.C@'L' J@ %>!' J +@' +@>' >KP C>A+ 10' 1'' <' ?% =@+' +< 0+' 1'' A>D<0+.E!' +' ?' >K>BA+

L' !' %,)% ' ,($ ' 3 %@; A,'0% A K'5 % A' D/H!' %; ,)''0' A,'%((13, A 5') 4 ; ,%)%'8, '5' 3%,,%' 1!',,!' 1%)' C ' A,1'Z'.,$1' %,' 3!'6 ! , $ 1!' $1'),1' 3 %1']')' %4 % ' (A% %(' 0' '3A, 3A$1' % $ %'0 1%.,' A,'2$,F ,(' 5'(%.%, ' 1%C' %(' 3 3 ,![' 8 ' $)0 $)% C' 4' 0 $)5',)' $ '% ' * % ' <M' 0 ',)'%' @, 1, A'0,.'C % '%0) ' ,!' F,,,!

E ! !

:

'.1B +@> B>.>+. C 1#? , C>? +@<+ $>%10= +1 +@> A1>+.E 1 +@> <=> @> >''>C+ 1 +@> ?>0+ B>0+ ? @> =@+P >0>D $E +@> ? BA%>! +#.0? <0D $.1H>0 B>%1DE 1 +@> 1%D <?+ % <0 ,>.?>! 1 J@ C@ A>.@<A? +@ ? B<E $> <CC1#0+>D +@> B1?+ ' 0 ?@>D ?A>C B>0 L ?#C@ J1#%D ?>>B +1 $> +@> "#D=B>0+ 1 @ ? 1J0 C1#0+.EB>0!T J@1?> =%1??>? <0D C1B B>0+<. >? 10 + @<,> ?J>%%>D 0+1 < ?>A<.<+> ,1%#B> '

?@<%% C%1?> +@ ? ?#.,>E J +@ < $. >" 01+ C> 1 +@> .<B<! J@1?> '1#0D<+ 10? B<E $> ?< D +1 @<,> $>>0 %< D D#. 0= +@ ? .> =0 @> ?<C.>D A%<E?! 1. BE?+>P . >?! ?1 A1A#%<. +@.1#=@1#+ #.1A> 0 +@> B DD%> <=>?! B<E $> +.<C>D 0 A< 0 +1 <0 <0C >0+ D<+> @> . '<B % <. A>.'1.B<0C> 0 +@> C@#.C@>? $E +@> C%>.=E ? .>C1=0 ?>D 0 +@> B DD%> 1 +@> +@ .+>>0+@ C>0+#.E $E < %<J 1 %A@10?1 ; ! J@ C@! J@ %> + 0+>.D C+>D C>.+< 0 A.1'<0> B#B B>. >? +@<+ @<D C1B> 0+1 ,1=#>! A.>?C. $>D +@> %>= + B<+> +1A C? '1. >K@ $ + 10 +

$ 8)? ' %),2$ [%C 3 5 E '% Z ($C% (3% *% %)% %51,) ,) '), %) ' C 1 ( ) (,% ( ) % 5 ![4 % $ % 1!F,,! ' ! * 3% 5)? ' %); ,2$ < 5! %5 ,5 //H! J ,%> ' 5 %) '$% %3! %C%) C , (% 1! ,,! 3! DH! J %)> ,2$ K * 3% A%. % 4) A $4+ (0% 3% % 3$4 ,; (% ,) ,) A), 5 % ! 0) '0 BK . ,) %((13%)C,) ' , , B (% ($; % 5 ' ,. A) ' , A %5 %(( ) ,) 0 A * % , ,%) 4% 5 %)5 0 ($ % . C F; %' ' % 5) 0 A , % C ($ $ 0 A %' ! 0 0 3 (,4,) ' (%,) 3 ; 0%) 1$11 , A %B ( ); 0,) A ('C A 3); % ,) 0 $(A $4+ (% Z A 4, A 0 $ %., $,) BA,(A , A B) A B A %) ' %33 % ; 5%)) $)(,) ' A,) % , ., C % A, %5.) %)5 A * 1,) ' 0 A A % ', @,) ' B A,3 A,1 %)5A, $ 2(,) A B; ,) ' A, ($(,0,F,) %)5 % ( ) ,)) A A, 5 5%C %)5 A

@>' +.<0? + 10' '.1B' +@>?>' .#D>!'?A>C+<C%>?' +1' B1.>'
.>=#%<.' D.<B<+ C' >''1.+?' J<?' ,>.E' ?%1J' <0D' =.<D#<%'
0' 6 6!' <0' <%%>=1. C<%' C1B>DE!' C1BA1?>D' $E' +@>'
C>%>$.<+>D' >0.E' <.F# ?' 1'' %%>0<!' J<?' A>.'1.B>D'
<+' <.<=1??<!' 0' +@>' A.>?>0C>' 1'' +@>' C1#.+ T' 0'
6 :!' <' D.<B<+ C' >C%1=#>' $E' <0' <010EB1#?' <#+@1.'
J<?' >K@ $ +>D' 0' +@>' A<%<C>' 1'' +@>' 1#0+' D>' .>0<!'
0' +@>' A.>?>0C>' 1'' >.D 0<0D!' 10' @ ?' C1B 0=' 0+1'
<?+ %>' +1' >?A1#?>' +@>' 0'<0+<' ?<$>%%< '' @>?>

$(A' A,)' ' %5,)'' 1)' ' 5 '
B ' %)5' ,. ' ( ) %) ',)' A '
0%, A![' P , ' % ,5% ' ,!' .,!'
C' D!X' ', 'B A') ,)'' A%'
,1, %' %4$ ' ( ) ,)$ 5' (1;
1)' %1)'' A ' ((,% ,('
5 B)' ' %4 %K' ,') '% ' 1%C'
4 ' ,)0 5' 0 1' %' 5 (' . C'
,1, %' ' A ' %B' 0' A ' % ,;
5% ' %4 . ' (, 5' 3$4 , A 5' 4C'
A ' ($)(,' 0' %)5%' D/ !'
P 3!' %,) ' 4 % '4 5!' 5 ' %'
(%5!' 1!' ,!' 3!' I/!X' %,)'
( ) ,5 ' ,' (%,)' A%' A ' ;
3) % ,)' 0' A '1C , ' F;
, 5' ,)' 3%,)' % ' 0% ' 4%(@' % '
A ' .) A' ( ) $ C!' A '3 ,);
(,3%' ' $)5 ' 0 ' A, ' ( )+ ($ '
%33 %' ' 4 ' A '0%(' A%' $(A'
) , $ '%4$ ' A%5' (3' ,) '
3 %(,(' 4C' A ' 1,55 ' 0' A '
A,) A' ( ) $ C' % ' ' 2$, '
A ' ,) .) ,)' 0' A ' %B!'
P 4,5!' 33!' ! !X' A '(, ($1;
%)(' B $ 5' 1' (13% ,4 '
B, A' %' 1$(A' 1 ' ( ) ' ,',)!
L' * .%) ' * 1 5,% ' 1!'
,! !' 5 ' % % ! J E % 2$ G'
,'! 5 ' %' ! 3%) !' 3!' I !'
J A6' 0,0 A' . $1 ' 0' A ' ;
1 , ' 0' A ' 3%), A' C% ' (%;
5 1C' 0' 8, C' ( ) %,) ' %' 5, >'
% , A')' A ' :')% ,)% ' 5,;
. ,) [' 4C')' : % T% ' >'
(A ' 5 ' ? . %) ' 3 ' B, A'
($, $ ' $5, ,) ' %)5' F ,,4, ,) ''
A ' 5, (,1,)% ,) '' % ' ' A%. '
4)' F3 (5' 0 1' , ' %((1;
3 , A 5' %$ A ! 1)'' A '
%) ,2$% ,%)' % (A ' A ' T. ,'
' A% ' ,) ($5 5' %' 4 , 0' ., B' 0'
A ' 0, A % ,(% ' % 13 ' ,)'
3%,)! ' 1! 5 ' % ! (%5'
5 ' 8, ! 1! .! 1 ! !
' %,) ' 4 % ' 1! ,! 3!'
6! J % % ' P*) 5 ' 5 ' * ;
.%) ' !X? . %) ' P 1!'
5 ' (%5! 1! .! 1 ! X'
,(' P ,')' 5 ' % ' * 1 ;
5,% ' 1! ,! 3! X %)5' A '
,13$ ' A ' %$ A A,3' 0' A, '
, ' 3, (' B, A $ ' A , % ,)' '
?$%) 5 ' %')(,)% ' % A $ ' A' A '
C % ' 0', ' 3) % ,)' (;
3)5 ' 3 (, C' B, A' A% ' 0' A, '
4, A!' A ' 3 .%)(' 0' ' ' '
%' 4 $)5 ' %1)'' A ' 3%), A'
(A % ' A B ' A B' , ' A '
%) ,2$, , ' 0' A , ' A % ' B '
$5, 5' 3 ., $ ' '? % ,)!

A >C>?‘ B<E‘ $>‘ .>=<.D>D‘ <?‘ +@>‘ ><.% >?+‘ +@><+. C<%‘ <++>B A+?!f<'+>.‘ +@>‘ .>% = 1#?‘ D.<B<?‘ <0D‘ A1A#%<.‘ A<0+1B B>?‘ <%.><DE‘ 01+ C>D‘ L‘ $#+‘ #0'1.+#0<+>%E‘ +@>E‘ @<,>‘ 01+‘ C1B>‘ D1J0‘ +1‘ #?‘ @>‘ 0>K+‘ A.1D#C+ 10‘ D>?>., 0=‘ <++>0+ 10‘ ?‘ <‘ <%1=#>‘ $>+J>>0‘ 1,>‘ <0D‘ <0‘ %D‘ <0!‘ BA#+>D‘ +1‘ 1D. =1‘ 1+<f‘ <‘ A1>+‘ 1'‘ J@1?>‘ @ ?+1.E‘ 01+@ 0=‘ ?>>B?‘ +1‘ $>‘ H01J0!‘ <0D‘ % ++%>‘ C10">C+#.>D!‘ $#+‘ +@<+‘ @>‘ '%1#. ?@>D‘ D#. 0=‘ +@>‘ .> =0?‘ 1'/1@0‘ ‘ <0D‘ >0.E‘ ‘ @>‘ D <%1=#>‘ ?‘ J. ++>0‘ J +@‘ B#C@‘ , ,<C +E‘ <0D‘ =.<C>!‘ <0D‘ J +@‘ <?‘ B#C@‘ D.<B<+ C‘ B1,>B>0+‘ <?‘ ?‘ C1BA<+ $%>‘ J +@‘ 10%E‘ +J1‘ 0+>.%1C#+1.? T

‘ B#C@‘ B1.>‘ B>B1.<$%>‘ A.1D#C+ 10‘ ?‘ .>'>..>D‘ +1‘ +@>‘ ?<B>‘ <#+@1.!‘ +@>‘ +.<= MC1B>DE‘ 1'‘ >%>?+ 0<!‘ 1.‘ <% ?+1‘ <0D‘ >% $><!‘ <?‘ +‘ ?‘ '.>F#>0+%E‘ C<%%>D‘ @>‘ ' .?+‘ <C+!‘ 0D>>D!‘ C10?+ +#+ 0=‘ 0><.%E‘ 10>M+@ .D‘ 1'‘ +@>‘ A >C>!‘ ?‘ <%%‘ +@<+‘ ?‘ BA#+>D‘ +1‘ 1+<‘ @>‘ .>P B< 0 0=‘ +J>0+E!‘ J@ C@‘ @1J>,>.‘ ?@1#%D‘ .<+@>.‘ $>

@?‘ %++%>‘ A>C>‘ @<?‘ $>>0 A#$% ?@>D‘ <+‘ %>0U@‘ $E‘ 1.<+ 0 0‘ +@>‘ '.?+‘ ,1##B>‘ 1'‘ @?‘ J1.H?‘ - >>‘ .=>0‘ D>%‘ ><+.1‘ ?A<01%!‘ $.<?!‘ +1B‘ ‘AA‘ O 6* @>‘ C>%>$.<+>D‘ <.F#?‘ 1'‘ <0+ <0<?‘ A1>+C<% D<%1=#>!‘ ‘ 1B>D>+<‘ D<‘ 510G<!R @<?‘ 01‘ A.>+>0?‘ 10?‘ +1‘ .<0H‘ <?‘ <‘ D.<B<P + C‘ C1BA1?+ 10!‘ 01+J +@?+<0D 0=‘ +?‘ + +%>!‘ J@ C@‘ ?‘ 0D>>D‘ <?% ++%>‘ ?=0'C<0+‘ 1'‘ +?‘ .><% C@<.<C+>.!‘ <?‘ +@>‘ +>.B‘ & 1BB>D<‘ ?‘ 1'‘ <0+>%?‘ >A C‘ +‘ ?‘ <‘ D?C1#.?>‘ 10‘ +@>‘ , C?? +#D>?‘ 1'@#B<0‘ %'>!‘ ?#==>?+>D‘ $E‘ <‘ ?><M'=@+‘ 0><.‘ 510G<!‘ 6 8‘ +‘ ?‘ C10D#C+>D B, A $‘ %)C‘ % 13‘ %‘ 5%1%&‘ ,(%(,)‘ ‘(A% %(‘ ‘ ,)5 5‘ 5 %1%,(‘ 5. 3 1 1‘ 0‘ %)C‘ ! A‘ %1‘ 1% @‘ 1%C‘ 4‘ 1%5‘ 0‘ A‘ 3 , ,(%‘ % , ‘ 0‘ ,)'‘ .$ '‘ BA,(A‘%33 % ; 5‘,)‘ 8) C‘ E!M‘ ,')!‘ ,%; '$‘ B%‘ (5‘4C‘ A ‘%$; A ‘%‘%‘ 1 ‘3 3$%‘%)5‘ 3,; , 5‘1 5,$1‘ A%)‘ 5, (‘)% %; ,. ‘0 ‘ ( ). C,)'‘ A , ‘),. 1) !‘ A‘* 1 5, %5%)G% A% ‘) . ‘%33 % 5‘,)‘3 ,) < A‘ (3C‘ ‘A%. ‘$ 5‘, ‘% %) (,3‘ 0 1‘ A‘) ‘,)‘ A‘ C%‘ ,4 % C‘ % ‘ %5 ,5‘ %)5‘ 4)'‘ ‘ 1C‘ 0 ,)5‘ !: ' ‘ ,(@) !

D>01B 0<+>D?C>0>?!J>.>C10+ 0#>D$E<01+@>.@<0D!
?1B>!+@1#=@+1"#D=>'.1B'+@>0+>.0<%>, D>0C>
<''1.D>D$E+@>?+E%>!01+B<0E!E><.?%<+>.@>
?>C10D<#+@1.J<? >.0<0D1D>1K<?!$<C@>%1.1"
%<J!<?@>0'1.B?#?!J@1C1BA1?>D+@?J1.H<?<
?1.+1"0+>%%>C+#<%.>%<K<+10D#.0=10>1"@?,<P
C<+10?@>+B>J<?C>.+<0%E01+B??A>0+@>
C10+0#<+10!@1J>,>.!?01+>?+>>B>D$E+@><?+P
%<0C.+C?+1@<,> .?>0F#+>+1+@>%>,>%1"+@>
1.=0<%<C+T

@>?+1.E+#.0?10<%1,>0+.=#>A<0?@
E1#+@1".<0H?>0<B1#.>D1"<%<DE!J@1?><''>CP
+10?@>=<0?J+@?1B>D''C#%+E!$#+J@1B@>
'0<%%E?>D#C>?+@.1#=@+@><.+?1"<0<CC1BA%?@>D

%',(15,%5*% C
,4%<5! (%%6I)
F5!J A,)"',3 ,;. C%;
(%,)5 3(,)"A%$A ;
A,3 0A0,%(0A* >
,)%! 1,13$,' ?$%)
5)%< A B,A1 3 ;
4%4,,C 5,'* % ' ,'
0 5 '%3)BA'%A$'A
, %C)A,)"',@)B) 0
A,1A%',) 1B%C A
4%15A(5, 0A%$;
A A,3 0 1 0A1 3 ;
3$%' 00$,)'S 0A0,0)A
()$C<$(A'0 F%13 %'
A ,% '$'%4.'(, 5 0 .'
%)5%) 5 %)'A* 3%' 0
,)'.$'%)5A,'0, '
%(' 0A* ,)%! A'3,);
(,3%'0$)5%,)' 0A ,13$;
%,)'B$5%33%' '4'A'
4%'% ,)' 0%)' 5, '0A'
,% '$'4B)' .'%)5%)

5 %)'BA,(A'%33 % 5'%' ;
5,)%'5'*%13 '6H')%C%
()$C3 4%4C%0 '*%K'
5%A4%) A' F%13 '0A'
4($,C BA,(A',). .'A'A, ;
C 0A'%C 3%), A'5%1%!
%)C 0A'*% ,%)'(,,('5 ;
('%0%. $' 0%) ,2$, C,)'A'
0, '%('BA,(A'A$5'(% C4%(@
,'(13 ,,)'%'0%'%'?A)'
!K' ,')! %,)'5 ')'
5, ( )'A,'A B .'%)5',V,);
(,)5' 0',' 3 5$(,)'
%'5%')'1$(A'1 '5, %)'
,0'%)C'A%)' %4 %K' ,1 !'
A'$)3%(,5'C'0'%0 ,');
'%'0%'%' C',')()5'
A'BA'B @'1,'A'B' 1'
A'3 5$(,)'0A'%1'3)!
%,)'4%'1!,! 33! II!
6 !J ,%'5'%')'$%'
33! 6J /!J ,(!), '
,4! 8, 3! .! 1!,,!3! I!

C1#.+>G<0!' J@1B' +@>' <#+@1.' @<?' 0+.1D#C>D' #0D>.'
+@>' .1B<0+ C' 0<B>'1'' >%>?+ 0<' @>' A >C>!' <%+@1#=@'
C1B C!' 1.' .<+@>.' ?>0+ B>0+<%' 0' +?' A.1=.>??!' +>. B P
0<+>?' 0' +@>' B1?+' +.<= C<%' C<+<?+.1A@>!' 0' J@ C@' <%%'
+@>' A. 0C A<%' <C+1.?' <.>' 0,1%,>D' @>' =>0>.<%' +>KP
+#.>' 1'' +@>' A%1+' ?' >KC>>D 0=%E' C%#B?E!' E>+' +' <''1.D?'
B<0E' ? +#<+ 10?' 1'' D>>A' <0D' ,<. >D' 0+>.>?+' 0' +?'
A.1=.>??' @>' A. 0C A<%' C@<.<C+>.?' 0' +@>' A >C>' <.>'
D>% 0><+>D' J +@' C10? D>.<$%>' ?H %%' @>' A<.+' 1'' >P
%>?+ 0<!' 0' A<.+ C#%<.!' 0' J@ C@' <' ,> %' 1'' A%<#? $%>'
@EA1C. ?E' ?' +@.1J0' 1,>.' +@>' D>>A>?+' A.1'% =<CE' 1''
C10D#C+!' ?' B<0<=>D' J +@' B#C@' <DD.>??' @>' ?#$P
1.D 0<+>' A<.+?' <.>' $.1#=@+' 0+1' $. ?H' C1B C' <C+ 10!'
J +@' 0<+#.<%' D <%1=#>!' +@1#=@' ?#'' C >0+%E' 1$?C>0>L'
<0D' <0' 0+>.>?+' 1'' <' =.<,>.' C1BA%>K 10' ?' .< ?>D' $E'
+@>' A<?? 10' 1'' +@>' %1,>.?!' +@>' + B D!' C10' D 0=' +>0P
D>.0>??' 1''+@>'%<DE!' <0D' +@>' ?1..1J?' 1'' +@>' $.1H>0P
@><.+>D' A<.>0+' @>' >K>C#+ 10' 1'' +@>' A%<E' .>B 0D?'
#?' 10' +@>' J@1%>' %>??' 1'' +@>' A<0 ?@' +@<0' 1'' +@>' 1%D'
0=% ?@' +@><+.>!' 0' B<0E' 1'' +?' D>'>C+?' <?' J>%%' <?'
$><#+ >?L' 0' +@>' C10+.<?+>D' ?+.>0=+@' <0D' B$>C % +E'
1'' ,<. 1#?' A<??<=>?!' +?' 0+>.B K+#.>' 1'' $.1<D' '<.C>'
<0D' D>>A' +.<=>DEL' +@>' #0?><?10<$%>' 0+.1D#C+ 10'
1'' '. = D' B>+<A@1.' <0D' A>D<0+ C' <%% %? 10' 0' +@>'
B D?+' 1'' +@>' B1?+' A<?? 10<+>' D ?C1# ?>?L' 0' +@>'
#0,> %>D' ,1%#A+#1#?0>??' 1'' +?' C1%1#. 0=!' 1CC<? 10P
<%%E' +11' =.1??' '1.' <0E' A#$% C' >K@ $ + 10' L' $#+!' <$1,>'
<%%!' 0' +@>' =>0>.<%' ?+.>0=+@' <0D' ' D>% +E' 1'' +?' A1.P
+.< +#.>

@>' +.<= MC1B>DE!' <?' +' ?' ?+E%>D!' 1'' >%>?+ 0<

J<?' 1$, 1#?%E' 0>,>.' 0+>0D>D' '1.' .>A.>?>0+<+ 10!' +1'
J@ C@!' 01+' B>.>%E' +@>' =.1??0>??' 1'' ?1B>' 1'' +@>' D>P
+< %?!' $#+' +@>' %>0=+@' <0D' <..<0=>B>0+' 1'' +@>' A >C>'
<.>' #0?# +<$%>' #+' 01+J +@?+<0D 0=' +@ ?!' <0D' +?'
<AA.1K B<+ 10' +1' +@>' C@<.<C+>.' 1'' <' .1B<0C>!' +'
B#?+' $>' <DB ++>D' +1' C10+< 0' J +@ 0' +?>%''+@>'>???>0P
+ <%' >%>B>0+?' 1'' D.<B<+ C' C1BA1? + 10' L' <0D!' <?' ?#C@!'
?' >K+1%%>D' $E' +@>' A<0 ?@' C. + C?!' <?' 1A>0 0=' +@>'
+@><+. C<%' C<.>>.' 1'' #.1A>' ' ? B %<.' C%< B' @<?'
$>>0' B< 0+< 0>D' '1.' 0><.%E' C10+>BA1.<0>1#?' A.1P
D#C+ 10?' 0' 1+@>.' C1#0+. >?L' <0D' >?A>C <%%E' '1.' 51% T'
+ <0 ?' .' 1!' J@ C@!' +@>.>' ?' % ++%>' D1#$+!' J<?' A#$% C%E'
<C+>D' $>'1.>' 64 ' 1+J +@?+<0D 0=' +?' .>A.>?>0P
+<+ 10T!' @1J>,>.!' +@>' .'U1!' A.>?>0+ 0=' <' C1B$ 0<+ 10'
1'' +@>' >C%1=#>' <0D' +@>' 1D>!' J +@1#+' <0E' A.1A>.'
+@><+. C<%' B1,>B>0+!' 1.' <++>BA+' <+' D>,>%1AB>0+' 1''
C@<.<C+>.!' C<001+' '< .%E' C1B>' J +@ 0' +@>' % B +?' 1''
D.<B<+ C' J.+ 0=' ' B1.>' <0C >0+' >K<BA%>' +@<0'
> +@>.!' <+' %><?+' <?' '<.' <?' +@>'>K+>. 1.' '1.B?' <.>'C10P
C>.0>D!' B<E' $>' A.1$<$%E' '1#0D' 0' +@>' C>%>$.<+>D'
.>0C@' '<.C>' 1'' 5 >..>' 5<+@>% 0!' A. 0+>D' <?'><.%E' <?'
696!' @<, 0=' $>>0' .>A><+>D%E' A%<E>D' D#. 0=' +@>'
A.>C>D 0=' C>0+#.E!' <0D' J@ C@!' J +@' +@>' .>F# ? +>'
B1D ' C<+ 10?U' ?+ %%' H>>A?' A1??>?? 10' 1'' +@>' ?+<=>'
@>' A.>+>0? 10?' 1'' +@ ?' A >C>!' @1J>,>.! <?' <' J1.HT'
1'' <.+' <.>' C1BA<.<+ ,>%E' @#B$%>L' <0D' +' ?>>B?' '< .'
+1' <DB +!' +@<+' 0' +@>' @ =@>.' <0D' B1.>' BA1.+<0+'
>%>B>0+?' 1'' D.<B<+ C' C1BA1? + 10!' <0D' >?A>C <%%E' 0'
+@>' D>% C<+>' <0D' <+' +@>' ?<B>' + B>' A1J>.'#%' D>% P
0><+ 10' T1'' C@<.<C+>.' <0D' A<?? 10L' +@>' A<0 ?@' C. + C?

B<E' $>'"#?+ ' >D' 0' .>=<.D 0=' +@>' >%>?+ 0<' <?' @<, 0=' %>D' +@>' J<E' 0' B1D>.0' #.1A> U

+@1#+' D>C D 0=' 10' +?' A.1A>.' C%<?? ' C<+ 10' <?' <' J1.H' 1'' <.+!' @1J>,>.!' +?' .><%' B>. +?' <.>' ?>++%>D' $E' +?' J D>' A1A#%<. +E' $1+@' <+' @1B>' <0D' <$.1<D' +' @<?' $>>0' +.<0?%<+>D' 0+1' B1?+' 1''+@>' #.1A><0' %<0P =#<=>?'L' <0D'+@>'A.>'<C>' +1'+@>' %<?+' >D + 10!' A#$% ?@>D' 0' <D. D' ?1' .>C>0+%E' <?' 477!' >0#B>.<+>?' +@ .+E' >D + 10?' 1'' +' 0' A< 0' <%10>!' 0' +@>' C1#.?>' 1'' +@>' ? K+>>0+@' C>0+#.E' BA.>?? 10?' J>.>' B#%+ A% >D' 0' +<%E!' <0D' <+' +@>' ,>.E' + B>' J@>0' +' J<?' 0+>.D C+>D' <+' @1B>' 10' +@>' ?C1.>' 1'' +?! B B1.<%' +>0D>0CE' ' A1A#%<. +E' +@#?' >K+>0D 0=' +@.1#=@' D ?+<0+' <=>?' <0D' 0<+ 10?!' ?@1J?' @1J' '< +@'#%%E' +' ?' $# %+' 10%' +@>' A. 0P C A%>?' 1'' @#B<0' 0<+#.> &Z&

@>' D.<B<' <??#B>D' +@>' A<?+1.<%' '1.B!' 0' +?' ><.%E

L' $(A',' A 'A,'A')(1,$1' 0' A' 4% ')5 ' K ,'!' 5K ')',' % $ %' 1!' ! % ! ,,!' ,4!' ,!' J' * .%) ' 5 ') ' A ,% ' ' (% ', 'Y',>' 4 ' 5,.,) ' %)5' A '%($ '%$; A ' 0' A 'S ,% ' '5 ' %')>' '$% K ( )($5 ' %' (, ,(,1' $3)' , ' B, A' A ' 1% @' A% 'Y' A ' , ') ' 4 @',)' A '*% , ,%)' BA,(A' $ 3% ', ',)' A '3 3, C' %)5' '%)(' 0', ' 5,(,)![' P)' W#$,F < 5!' 5 ' ,(' 1!',!' 3!' 0! J %C%) 'C', (% ' 1!' ,,!' 3!' /!X ' 1 , ' ,)5 5' 1',)' 1 ' 5 ' ' ' A%. ' 5, % 1 5' .)' A ' . , C' 0' 0 ,')' (,; ,('< %)5' ,') , '%0 ' %)5; ,)'' $3' $ C',)' 5 0)(' 0' A

3 (5)(' 0' 0 ' % ' %' 5 %; 1%,(' (13 , ,)' %51, ' A ' * ,)% ' 4' %' Y' B @' ,(A' ,)' .% , $ ' 4 %$, ' %)5' 1 , ; ,)'' $)5 $4 5' %33 %$!)' 0%([' A ' ( ) ,)$ ' A ' .,.%; (, C' 0' A ' 5 (,3,)' 0' (A%; %(' %)5' 0%, A0$' 3 %, $ ' 0' 1%)) ' A%. ' 1%5 ' , ' ,1; 1 %![' ,% * , ,(% 5 K %>' , ,< 5!' %3 ,' I ' 1!' .,!' 33!' D ' D/!

' $ B @' , % $ % >' 3%)!') !' 5 ' %5!' 3!' D! J); 5 ' ,'!' 5K ')',' %!' 1!' E!' 33!' 9 !' 9 < 5!' E)!' 94 ' J %13, % ' %!' 3%')$>' %' 1!' .,!' 33!' 6/ J +0Q 5!' :) %' /I !

?+<=>?!' 0' A< 0' <?' 0' +<%E' @>' 1%D>?+' ?A>C B>0?' 0' +@ ?' J<E!' J@ C@' @<,>' C1B>' D1J0' +1' #?!' <.>' +@>' A.1D#C+ 10?' 1'' /#<0' D>' %<' 0C 0<!' <' C10+>BA1.<.E' 1'' 1K<?' >' J<?' $1.0' 0' 6 :!' <0D!' <'+>.' C1BP A%>+ 0=' @ ?' >D#C<+ 10' <+' <%<B<0C<!' J<?' .>C> ,>D' 0+1' +@>' '<B %E' 1''+@>' #H>' 1'' %,<' >' C10+ 0#>D' +@>.>' ?>,>.<%E>.?!' >BA%1E>D' 0' +@>' C1BA1?+ 10' 1'' ,<. 1#?' A1>+ C<%J1.H?L' <B10=' 1+@>.?!' <' ,>.? 10' 1'' .= %?' C%1=#>?!' J@ C@' @>' ?1' <%+>.>D' <?' +1' <CC1BP B1D<+>' +@>B' +1' +@>' A. 0C A<%>,>0+?' 0' +@>' .> =0' 1'' >.D 0<0D' <0D' ?<$>%%<' >' , ?+>D' +<%E' 0' +@>' $>= 00 0=' 1'' +@>' '1%%1J 0=' C>0+#.E!' <0D' J<?' <++.<C+P >D' $E' +@>' B#0 ' C>0+' A<+.10<=>' 1'' >1' ; ' +1' ' K' @ ?' .>? D>0C>' <+' +@>' A<A<%C1#.+' @ %>' +@>.>!' @>' C10P + 0#>D' @ ?' % +>.<.E' %<$1#.?' >' >B$.<C>D' +@>' >CC%>P ? <?+ C<%A.1'>?? 10L' <0D' @ ?' ?H %%' 0' B#?' C' .>C1BP B>0D>D' @ B' +1' +@>' 1'' C>' 1''A. 0C A<%D .>C+1.' 1''+@>' A10+ ' C<%C@<A>%' >' J<?' ?#$?>F#>0+%E' A.>?>0+>D' J +@' +@>' A. 1.E' 1'' >10!' <0D' .>+#.0>D' +1' A< 0!' J@>.>' @>' D >D!' 8 6 T

0C 0<?' J1.H?' ' .?+' <AA><.>D' <+' <%<B<0C<!' 6: !' C1%%>C+>D' 0+1' 10>' ,1%#B>' '1% 1 '' >? D>?' 1+@>.' A1>+.E!' +@>E' C1BA.>@>0D' <' 0#B$>.' 1'' D.<B<+ C

L' +% ' E,%' ')),5 ' '' 6 O ,(!')), ' ,4! 8, 3!' .!' 1!',!' 3!' 46 O %,)' 4 % ' 1!',!' 33!' 7 !' 79 O' ,(' ,')' 5 ' % ' * 1 5,% ' 1!',!' 33!' ' !

A C' B ' 3$4 , A 5',15 ' ,' , ' Y' *%)(,) ' 5 ' 5%

%<?' 1$.<?' 5 ' /#<0' 5 ' %<' 0C 0<' C10' 1+.<?' <@<D D<?' ' - >0D>G!' EA1=.<A@' ?A<01%<!' A' 769 *' #$?>F#>0' BA.>?? 10?' 1'' @?' J1.H?!' B1.>' 1.' %>?? C1BA%>+>!' <AA><.>D' <+' <%<B<0C<!' 8 <!' <0D'<+' <.<=1??<!' 8 7<0D%8 !' O 1.<+ 0!' $.<?!+1B' 'A' 79!' 01+

>C%1=#>?!' ?<C.>D' <0D' A.1'<0>' +@>' '1.B>.' ?#==>?+>D' $E' +1A C?' D.<J0' '.1B' C. A+#.>!' % H>' +@>' <0C >0+' BE?+>. >?' L' +@>' %<++>.!' C@ >'%E' <B<+1.E' @>E' J>.>' A>.'1.B>D' 0' +@>' A<%<C>' 1'' @ ?' A<+.10!' +@>' #H>' 1'' %,<!' 0' +@>' A.>?>0C>' 1'' 5. 0C>' /1@0!' +@>' #H>' D>% 0'<0+<D1!' <0D' 1+@>.' >B 0>0+' A>.?10?' 1'' +@>' C1#.+L' <0D' +@>' A1>+' @ B?>%'' 1CC<? 10<%%E' <?? ?+>D' <+' +@>' .>P A.>?>0+<+ 10 T

0C 0<?' >C%1=#>?' <.>' ? BA%>' C1BA1?+10?!' J +@' % ++%>' A.>+>0C>' +1' D.<B<+ C' <.+ ' C>' @>' ?+1.E' ?' +11' B><=.>' +1' <DB +' 1'' B#C@' 0=>0# +E' 1.' C10+. ,<0C>!' 1.' +1' >KC +>' <0E' D>A+@' 1'' 0+>.>?+' @>.>' <.>' '>J' 0+>.%1C#+1.?!' ?>%D1B' B1.>' +@<0' +@.>>' 1.' '1#.!' <%P +@1#=@' 10' 10>' 1CC<? 10' . ? 0=' +1' <?' B<0E' <?' ?>,>0' L

L' A' (1 5,%)' +% ' BA' 0 $,A 5' ,)' A' 4 ',)),)'' 0' A'0 B,)'' ( ) $ C'%)5' BA' E,%'')),5' ,' ');' ,%' ' A'@) B 5'' 0' A' % C' A, ,),(' % ' ,)' 3%,)' ,5) ,; 0, ' A' %33 % %)(' 0')(,)%K' ('$ ' B, A' A' 5%B)' 0' A' *% , ,%)'5 %1%!' 8, '. ' 1%C' 4'B A'2$,)'!

Y' #$' ')')$ % 1%5 ' >' 3%)% 3 2$')' %'5,(A % %' 2$'%2$ ' ' , ' C ' 5,')' 5'1 1 ,% 1%)')%)5' ' %4 ' P2$'C%'( )' ' %) ' C)%)X' 5' (A%'5' 3%8%%(%4%.%)' 5 ' , ('2$' %)' '%2$' 1'5': %)%5%' C'))(' '5%.%)' % 3,)(,3,'%' %')2$, ,(,)

' '5,'%')$ %'(1 5,%!' ?$%)'5' %')(,)%' '3,1 ' %2$' ,) ,') '3 %' 2$' %) '4,)' 13 G' 5'2$,)') 1 ' ' '%' #$' ' 1, ,)' 3) ' % ' 1, %)' C' 2 % 5' *% , %' C' 5')0%) %5' 2$' %'0$)' %'3,1 %' '3% %'1%'A) % $C%' C' 5' %'(1 5,%)$ %')' ' 5,%'2$' *)' Z 5 ($4 , ' %' ' %)' ,2$ G% ')5,%'C')$. ' 1$)5 ' C' ' ' %)' *%3, %)' 13, G% %' $' %'%2$ ' C)' 5' %3 'C' $' , %! '5 ($4 , ' 13 G' '$ '5' %'(1 5,% 3 2$' 5 ' %),1%)' %' 13)5 '(%' %)4$)% ![' 0! D ' D/!

1'' C1#.?>' +@>.>' ?' % ++%>' ?C1A>' '1.' +@><+. C<%' <C+ 10 '
@>' C@<.<C+>.?' <.>' 1'' +@>' @#B$%>' C%<??' $>%10= 0=' +1'
A<?+1.<%' % '>!' <0D' +@>' D <%1=#>!' J@ C@' ?' >K+.>B>%E'
<AA.1A. <+>!' ?' C10D#A+>D' J +@' '<C % +E!' $#+' +@>'
.#?+ C' C10D + 10' 1'' +@>' ?A><H>.?' A.>C%#D>?' <0E' +@ 0='
% H>' % +>.<.E' >%>=<0C>' 1.' ' 0 ?@!' 0' J@ C@' .>?A>C+' +@>E'
<.>' D1#$+%>??' ?#.A<??>D' $E' ?1B>' 1'' @ ?' B1.>' <BP
$ + 1#?' C1BA1? + 10?' @>.>' ?' <' C1B C' < .' BA<.+>D'
+1' +@>B!' @1J>,>.L' <0D'<' % ,>%E'C1%%1F# <%' +#.0!' J@ C@'
.>0D>.?' +@>B' F# +>' <=.>><$%>' + %%!' J@<+>,>.' $>'
+@> .' B>. +' <?' A<?+1.<%?!' +@>E' <.>' >0+ +%>D' +1' % ++%>'
C10? D>.<+ 10' <?' ?A>C B>0?' 1'' D.<B<+ C' <.+L' <0D' 0'
+@>' , +<%' ?A . +' 1'' D.<B<+ C' C1BA1? + 10' B#?+' $>' .>P
=<.D>D' '<.' 0'>. 1.' +1' +@>' >%>?+ 0<' @>'? BA% C +E'
1'' +@>?>' A.1D#C+ 10?!' <0D' +@>' '<C % +E' 1'' +@> .' >K@ P
$ + 10!' J@ C@' .>F# .>D' % ++%>' +@>@+. C<%' D>C1.<+ 10' 1.'
C1?+#B>!' .>C1BB>0D>D' +@>B' +1' A1A#%<.' B +<+ 10!'
J@ C@' C10+ 0#>D' %10=' <'+>.' +@>' .>=#%<.' '1.B?' 1''+@>'
D.<B<' J>.>' 0+.1D#C>D' 0+1' A< 0 T

@>' C.>D +' 1'' +@ ?' 0+.1D#C+ 10' $>%10=?' +1' <.+1P
%1B>1' 1..>?' D>' <@<..1!' 1'+>0' C10'1#0D>D' $E' +@>'
<?+ % <0' J. +>.?' +@>B?>%,>?' J +@' <' A%<E>.' 1'' +@>'
?<B>' 0<B>!' J@1' '%1#. ?@>D' @<%'' <' C>0+#.E' %<+>. '

L' ,') ,' ((,)'' BA%' D>' ><+.!' +1B' ,' AA' :7!'
A' 5) 1,)% ' A' # 0' :
%13, % ' ( ) ,5 ')(,)%' ' 0')5 ' ( )0 $)5,)'' '
A%.' (13 5') C')' 3% %' 5' %A% ' A' 3 ' B, A' %;
5 %1%' %)5' A%')' ((%,)' 0' A% ' A' (1 ,%)' BA' 0 $;
5,)%)5K') %)(' ,)' *% ; , A 5'%4 $'A% 0'%' ( ) $ C' % '
, !' A' (, ,(A $5' A%.' ,' 5',) '%' $5,($' %,)' 0'
4)' 1 ' (A% ,%4 ' %' A' A%' ' ,)' ( ) . ,)'' * .%);
1%5' B' 4 $)5 ' A,1 0' ,)' 'BA' (, ,(, 1')' A' %('
((,)'') ! ,%' * , ,(% ,' 3 ,3 $%? C' 1, %33 , 5' 4C

>J A<.+C#%<.? @<,> $>>0 <?C>.+<0>D 1 @ ? A>.P ?10<% @ ?+1.E >J<? $1.0 <+ 1..>! 0 +@> A.1P ,0C>1 ?+.>B<D#.< 0 +@> ><.%E A<.+1 @ ? % '> @> '>%% 0+1 +@> @<0D? 1 +@> %=>. 0>?! <0D J<? '0<%%E .>%><?>D '.1B C<A+ ,+E @E +@> >K>.+10? 1 C>.+<0 $>0>,1%>0+ +<% <0?! J@1 =>0>.1#?%E A< D @ ? .<0?1B > +@>0 >?+<$% ?@>D @ ? .>? D>0C> 0 +<%E! <+ +@> C1#.+1 > 1 ; 0D>. +@> =>0 <% 0'%#>0C> 1 +@<+ A<+.10<=>! J@ C@ F# CH>0>D ?1 B<0E 1 +@> ?>>D? 1 =>0 #? +1 A.1D#C+10 0 >,>.E D>A<.+B>0+! @> C1BA1?>D @ ? 5.1A<%<D <! < J1.H >B$.<C 0=< ,<. >+E 1 %E. C<% <0D D.<B<+C A1>+.E! ' .?+ A#$% ?@>D <+ 1B>! 8 9 0'1.+#0<+>%E! +@> C<#?+C ?<+ .> %>,>%%>D 0 ?1B> 1 +@> @ =@>. A >C>? 1 +@ ? C1%%>CP +10 <+ +@> % C>0?> 1 +@> A10+ ' C<% C1#.+! $.1#=@+ ?#C@ 1$%1F#E 10 +@> @><D 1 +@> <#+@1. <? C1BA>%%>D @ B +1 +<H> .>'#=> 0 <A%>?! J@>. > @> .>B<0>D #0D>. +@> A.1+>C+10 1 +@> 01$%> '<B %E 1 1%100< 1 '#.+@>. A<.+C#%<.? <. .>C1.D>D 1 @ B >KC>A+ +@<+ @> >B$.<C>D +@> >CC%>? <?+C<% A.1'>?? 10 L <0D +@> +B> <0D A%<C> 1 @ ? D><+@ <. > <% H> #0C>.+<0 0 A>.?10 @> ? ?< D +1 @<,> $>>0 C1B>%E! J +@ <0 <B <$%> D ?A1?+10! <0D ?>D<+> <0D D =0 '>D D>P B><01#. T

)5 A 3 ! E %2$ G 1 A%. ( )0 $)5 5 A 1 ,) ,@ 1%)) !) A .,; 5)(0 A F 1 C $3 ; 0,(,% %(2$%,) %)(0 A 3%); , A(, ,(B, A A , % C5 %1%! *0! * .%) * 1 5,% C)> 1 1! ,! ' ! J); 5 ,',) 5K '), % $ %

1! E! 3! /H< 5! E) ! J E %2$ G ,'! 5 % ,% *% %)% 3! I I! T C 0+10 1! $?A 1, +1B A'A7 7O >.,<0+>?! 1B>D<?! +1B ' 5.1% D> <M ?<..> O 5>%% C>.! .=>0 D> %<? 1B>D<?! +1B ' A' 9 O 1M .<+0! $.<?! +1B ' A' 64

D ’

%1J>.’ % ’>’ +@<0’ 0’ +@>’ @ =@>.L’ <0D’ B1.>’ +@<0’ 10>’ 1’’ @ ?’ A%<E?’ <.>’ D>,1+>D’ >KC%#? ,>%E’ +1’ +?’ %%#?+.<+ 10 ’ 0’ ?1B>’ 1CC<? 10?!’ @1J>,>.!’ +@>’ <#+@1.’ <??#B>?’ <’ B1.>’ >%>,<+>D’ +10>!’ <0D’ @ ?’ ,>.?>’ . ?>?’ +1’ <’ D>=.>>’ 1’’ A1>+ C’ $><#+E!’ D>>A>0>D’ $E’ +@>’ B1.<% .>’%>C+ 10’ ?1’ C@<.<C+>. ?+ C’ 1’’ +@>’ A<0 <.D?’ +’ 1+@>.’ + B>?’ <=< 0’ @ ?’ A >C>?’ <.>’ D ?’ =#.>D’ $E’ ?#C@’ <’ <$>%M% H>’ C10’#? 10’ 1’’ +10=#>?!’ <?’ B<H>’ +’ D1#$+’#%’ J@ C@’ B<E’ $>’ +@>’ A1>+ ?’ 1J0’ ,>.0<C#%<.’ .>0C@!’ A<0 ?@!’ +<% <0!’ J +@’ <’ ,<. >+E’ 1’’ $<.$<.1#?’ ’ <0D’ B10P =.>%’ <+ 0!’ <.>’ <%%’ $.1#=@+’ 0+1’ A%<E’ <+’ +@>’ ?<B>’ + B>!’ <0D’ <%%’ C1BA.>@>0D>D!’ <AA<.>0+%E’ J +@’ >F#<%’ ’<C % +E!’ $E’ ><C@’ 10>’ 1’’+@>’ ’ <’ +’ ?’ D ’% C#%+’ +1’ C10C> ,>!’ @1J>,>.!’ @1J’ ?#C@’ <’ "<.=10’ C1#%D’ @<,>’ $>>0’ C1BA.>@>0D>D!’ ’<.’ B1.>’ .>% ?@>D!’ $E’ <0’ +<% <0’ <#D >0C> !T

<@<..1?’ C1B>D >?’ <.>’ 01+’ B#C@’ +1’ $>’ C1B B>0DP >D’ ’1.’ +@>’ 0+. =#>!’ J@ C@’ =>0>.<%%E’ >KC +>?’ $#+’ <’ %<0=# D’ 0+>.>?+!’ <0D’ ?@1J?’ % ++%>’ A1J>.’ 1.’ <D.1 +P 0>??’ 0’ +@>’ C10+. ,<0C>’ +@’ >,>.E’ D>’>C+!’ @1JP >,>.!’ +@>E’ B#?+’ $>’ <%%1J>D’ +1’ @<,>’ = ,>0’ +@>’ ’ .?+’ ’1.B?’ +1’ A<0 ?@’ C1B>DE!’ <0D’ +1’ >K@ $ +’ B<0E’ 1’’+@>’ ’><+#.>?’ J@ C@’ C10+ 0#>D’ +1’ $>’ C@<.<C+>. ?+ C’ 1’’ +’ 0’ <’ ?+<+>’ 1’’ B1.>’ A>.’>C+’ D>,>%1AB>0+!’ #0D>.’ 1A>’ D>’ >=<’ <0D’ <%D>.10’ #C@!’ ’1.’ 0?+<0C>!’ ?’ +@>’ <B1M

$’)’ A’ ’$1)’ ’ A’ %3A,)%’ A’ A$’ 3 3% ’ A’ %$5,)(’ 0 ’ A,’ (2$,%’ ’ >

%’ A%. ,’ 5’ %’% % 3 ’) ,’ ’3)%’

2$’ A%4 %)’ 2$% ’)’$%’ ! 8% %’%(%4%’ $ AC %)’ %)’ 5’ ($) %’(, % 3 ’ %,)’ ’ %,%) ’ *% %) ’C’E%)(,%) ’ 2$’),)’$) ’ 5 ( )(, %![3% %5!’ 3!’ !

.1#?"><%1#?E! <0D >?A>C <%%E +@> A1 0+ 1'' @101#.! ?1 C10?A C#1#? 10 +@> A<0 ?@ +@><+.>L <0D ?#C@! +11 +@> B1.<% C10'#? 10 +11 1'+>0 A.1D#C>D $E $%>0D 0= +@> '1#%>?+ C. B>? J +@ G><% '1. .>% = 10 T @>?> C1B>D >?! B1.>1,>.! '<. '.1B $% 0D C10'1.B +E J +@ +@> <0C >0+?! D ?C1,>.>D B#C@ 1'' +@> ?A + 1'' 0D>P A>0D>0C>! <0D D>, <+>D 0+1 B<0E 1'' +@> >CC>0+. C P + >? J@ C@ D ?+ 0=# ?@ +@> 0<+ 10<% +@><+.> 1'' %<+>. + B >?L <0D J@ C@ +@> C. + C ?B 1''1#. 1J0 D<E @<? ?1 ?#CC>??'#%%E >KA%< 0>D <0D D>'>0D>D 10 A@ %1?1P A@ C<% A. 0C A%>

<@<..1 ? A%<E? J>.> .>A.>?>0+>D! <? <AA><.? '.1B @ ? A.1%1=#>! 0 +<%E! A.1$<$%E 01+ 0 1B>! J@ C@ @>F# ++>D ?110 <'+>. +@> . A#$% C<+ 10! $#+ <+ <A%>?! J@ C@! +@>0 '1. B 0= A<.+ 1'' +@> A<0 ?@ D1B 0 10?! B =@+ B1.> ><? %E '#.0 ?@ <0 <#D >0C> C<A<$%> 1'' C1BA.>@>0D 0= +@>B '' + ? .>B<.H<$%> +@<+! 01+M

 0 A 0 B,)'', %) F%1; 3 0 A 3 (, $ %),) ; B, A BA,(A , %) ,) A 3 %C%4 . 2$ 5 ( )(, A, ( ) (,)(A 1$ 5 0 A, B,0 0 % ,) 5 ' % ,0C A + % $ C 0 A, 1, %3A,)%! , %) , %55 ; ,)'A,1 0 %3 , ! Y 3 1% 5%,, ($ %) 2$, A %A%G ,) 2$ 1) ! #$ C 1% $ ' %' 0 % 5 %0,)% C % 3 2$ '3$ 5%(! #$ C 4,) 1 1% %,% 3$ 5%% G) 1 ,)(,)%< 3 5 %0,)% 2$ 5 3 %,%!

 0 %' 3$ 2$ A% ,%V #$%)5 1, 1$ $3, 2$ (2$) 3$5,) %' .,5%$)' 5,%! $ A%4 %)5 %(%)) %' 0 % (%4 %' $ 4 3 2$ ( )' $ % 1$ ($ % %) % 5 5 1 5 2$ 3%5 . , %1% 1 %' 2$ C %' 1, 1 (5 1 A% C C %14,) .,(, %' , ! S 2$,C4 %' 1% % 1 , %' *A , ,%)%1) < C 1 , 3), 2$%)5 1, $ '% ![3% %5! 0! I! 0 ,') , B%F F(5>

J +@?+<0D 0=' +@> .' .>A><+>D' >D + 10?' 0' A< 0!' +@>E' D1' 01+' <AA><.' +1' @<,>' >,>.' $>>0' A>.'1.B>D' +@>.>'
@>' C<#?>' 1''+@ ?!' A.1$<$%E!' J<?' +@>' %1J' ?+<+>' 1''+@>'
@ ?+. 10 C' <.+!' <0D' +@>' +1+<%' D>' C >0CE' 0' +@><+. C<%'
C1?+#B>' <0D' D>C1.<+ 10' L' E>+' +' J<?' 01+' ><?E' +1' D ?P
A>0?>' J +@' +@>?>' 0' +@>' .>A.>?>0+<+ 10' 1'' A >C>?'
J@ C@' $.1#=@+' B1.>' +@<0' <' ?C1.>' 1'' A>.?10?' 1CC<P
? 10<%%E!' <0D' +@>?>' C.1J0>D' @><D?!' <+' +@>' ?<B>' + B>!'
#A10' +@>' ?+<=> T

1B>' C10C>A+ 10' B<E' $>' <''1.D>D' 1'' +@>' %<B>0P
+<$%>' A1,>.+E' 1'' +@>' +@><+. C<%' >F# AB>0+!' '.1B +@>'
<CC1#0+' = ,>0' 1'' +?' C10D + 10!' @<%'' <' C>0+#.E' %<+>.!'
$E' >.,<0+>?' Q' @>' J@1%>' J<.D.1$>' 1''<' B<0<=>.'
1''+@>' +@><+.>!' <+' +@<+' + B>!R' ?<E?' @>!' Q' J<?' C10+< 0P
>D' 0' <' ? 0=%>' ?<CH!' <0D' <B1#0+>D' 10%E' +1' '1#.'
D.>??>?' 1'' J@ +>' '#.' +. B B>D' J +@' = %+' %><+@>.!' '1#.'
$><.D?!' '1#.' J =?!' <0D' '1#.' C.11H?!' B1.>' 1.' %>??'
@>.>' J>.>' 01' +.<AD11.?!' B1,><$%>' C%1#D?!' 1.' B<P
C@ 0>.E' 1''<0E' H 0D' @>' ?+<=>' +?>%''C10? ?+>D' 10%E'
1''1#.' 1.' ? K' A%<0H?!' A%<C>D' <C.1?' <?' B<0E' $>0C@>?

,)' C' B A' B, A')' ,%' %>' A%5' A' ( ) $ 5' A' 3 '$' 0'
% '0' A' % ,)' A%' %>' %A% ' A, 1 0' BA ' A' % ;
A% '0, ' %$'A' A ' %,%) ' ' ' A' 0%(' ,)' A' 1 ' F;
B , ' (1 5C' %F,)'' A, 1' B, A' 3,(,' 1%)) !' *0!' 3% %5,%'
5 B) ,'A' 1)5%(, C' %)5' A' !' %)5' ,') ' ,%' * ,'
$ C' 5), ' A'3 4%4, , C' 0' ,(%' 1!.,!'33!' / ' J /'H! J '
%A% K' (1 5, ' . ' A%.,)'' % ' %0,)' ,'! 5 ' % '
4)' 3 0 1 5')' A' % ,%)' 3%,, ' 1!,! &3! DH' 6 >
A % 5 ! A' (, ,(1 ' '4'
,)' A' ,'A' % ' 0% ' % ' '% 5' Q' 3% %5,%' A' (1 5, '
A',)0 $)(' 0' A' 3%), A'5 %; 0' 0 % %)5' ,) %,%! J? . '
1%, ' 4$' A' 1,'A' A%. ' 4)' %) ' 1! 4 ' % ' , . '
3% 5 % '5 $4 ' 3 (,)'' A , ' ,) ' %3! 1! 5 ' % %'
3) %,)' ,)' A' ($) C! (%5! 1! .!

<..<0=>D 0 +@> '1.B 1'' < ?F#<.>! <0D >%>,<+>D $#+ '1#.' A<%B?' '.1B' +@>' =.1#0D' @>' 10%E' D>C1.<+ 10' 1'' +@>' +@><+.>' J<?' <0' 1%D' C1,>.%>+! D.<J0' '.1B' ? D>' +1' ? D>' $E' C1.D?! $>@ 0D' J@ C@' +@>' B#? C <0?' ?<0=' ?1B>' <0C >0+' */' J +@1#+' +@>' =# +<. RT' 0' '<C+! 01' '#.+@>.' <AA<.<+#?' J<?' >BA%1E>D' +@<0' +@<+' D>B<0D>D' '1.' +@>' >K@ $ + 10' 1'' BE?+>. >?! 1.' +@>' A<?+1.<%' D <%1=#>?' J@ C@' ?#CC>>D>D' +@>B ' @>' A<0 <.D?! 01+J +@?+<0D 0=' +@> .' A.>C1C +E' C1BA<.>D' J +@' B1?+' 1'' +@>' 0<+ 10?' 1'' #.1A>' 0' D.<B<+ C' <.+! J>.>' #0<CC1#0+<$%E' +<.DE' 0' <%%' +?' @ ?+. 10 C' <CC1BP A<0 B>0+?' @>' A#$% C' .>B< 0>D' C10+>0+' J +@' ?#C@' A11.' B#B B>. >?' <?' C1#%D' $>' =1+' #A' $E' ?+.1%% 0=' A%<E>.?' <0D' B1#0+>$<0H?L' <0D' +@>.>' J<?' 01' ' K>D' +@><+.>' 0' <D. D' #0+ %' +@>' %<++>.' A<.+' 1'' +@>' ? KP +>>0+@' C>0+#.E!' <0D' +@<+' C10? ?+>D' 1'' <' C1#.+ME<.D' J +@' 10%E' <' .11'' +1' ?@>%+>.' +!' J@ %>' +@>' ?A>C+<+1.?' ?<+' 10' $>0C@>?' .<0=>D' <.1#0D! 1.' <+' +@>' J 0D1J?' 1'' +@>' ?#..1#0D 0=' @1#?>? '

' ? B %<.' BA#%?>' J +@' +@<+' >KA>. >0C>D' $E' C1B C' J. + 0=' J<?' = ,>0' +1' +.<=>DE' @>' ' .?+' +@<+' >0+>.P >D' 10' +@ ?' D>A<.+B>0+' J>.>' A.1'>??>D' ?C@1%<.?!' J@1' <D1A+>D' +@>' >..1.' 1'' +@>' +<% <0' D.<B<+ ?+?' 0' '<?@ 10P 0=' +@> .' A >C>?' ?>., %>%E' <'+>.' +@>' <0+ F#>! 0?+><D' 1'' ?> G 0=' +@>' >KA.>?? 10' 1'' +@> .' 1J0' <=>' @>' B1?+' C10?A C#1#?' <++>BA+?' 0' +@ ?' J<E' J>.>' B<D>' $E' >.M' 0<0' 5>.>G' D>' %,< (L' >' J<?' $1.0' <+' 1.D1,<!

T' >.,<0+>?! 1B>D<?E' 0M >>' <%?1' B>.C<0' I#<.+>.%E' +.>B>?>?! +1B' ' 5.1% >,>J! 1' ' .+' +' 5>%%C>.!' .=>0' D>' %<?' 1P +' $.<?D>' %,<L' >D' D>' <P B>D<?! +1B' ' AA' 84O 7 O'U D.D! 949 O <?C1' <G' <0C1!

E ! ! G

6:6!' <0D' <'+>.' B<0E' E><.?' A<??>D' 0' +@>' ,<. 1#?' ?C@11%?' 1'' A< 0!' .<0C>!' <0D' +<%E!' .>+#.0>D' +1' @ ?' 0<+ ,>' %<0D!' <0D' $>C<B>' <' %>C+#.>.' 0' +@>' #0 ,>.? +E' 1'' <%<B<0C<' >' 0?+.#C+>D' 0' B1.<%' A@ %1?1A@E' <0D' B<+@>B<+ C?!' <0D' >?+<$% ?@>D' +@>' @ =@>?+' .>A#P +<+ 10' '1.' @ ?' C. + C<%' <CF#< 0+<0C>' J +@' +@>' <0C >0+' %<0=#<=>?' <0D' @ ?' 1J0 ' >' D >D' E1#0=!' <+' +@>' <=>' 1'' +@ .+EM0 0>!' D>>A%E' %<B>0+>D' '1.' @ ?' B1.<%' J1.+@!' 01' %>??' +@<0' @ ?' 0+>%%>C+#<% T

?' ,<. 1#?' J1.H?' J>.' A#$% ?@>D' $E' +@>' %><.0>D' 1.<%>?!' @ ?' 0>A@>J!' ?1B>' ' '+E' E><.?' <'+>.' @ ?' D><+@T' B10=' +@>B' <.>' +.<0?%<+ 10?' 0' A.1?>' 1''+@>' %>C+.<' 1'' 1A@1C%>?!' <0D' +@>' >C#$<' 1'' #. A D>?' @>E' B<E' J +@' B1.>' A.1A. >+E' $>' +>.B>D' B +<+ 10?!' <0D' +@1?>' +11' 1''+@>' '.>>?+' H 0D!' +@<0' +.<0?%<+ 10?' %P +@1#=@' +@>E' C10'1.B!' 0' +@>' =>0>.<%' <..<0=>B>0+' <0D' A.1=.>??' 1''+@>' ?+1.E!' +1' +@> .' 1. = 0<%?!' E>+' C@<P .<C+>.?!' 0<E!' J@1%>' ?C>0>?' <0D' D <%1=#>?!' <.>' 1CC<P ? 10<%%E' 1B +>D!' <0D' 0' +@1?>' .>+< 0>D' +' ?' 01+

%')% ,. ' 0' 1%5$,%' BA' 0 $, A 5' ,)' A' 0, ' A% 0' 0' A' ,F) A' ( ) $ C' 1) ,) ' ,)') ' 0'A, 'B @' A ' %' ; 5, ' (13 5' 4C' A,1 0')' (,3 $ ' $4+ (! ' A ', ') ' .,5)(' A B . ' 0' A , ' A%.,) ''4)'3 ,) 5' '3 0 1; 5' ' .)' %5' ,)' 1%)$ (,3 ' 4C' %)C') ' A C' A% 5 C' 5 . ' ' 4 ' ,)($5 5' ,)' A ' (% % '$ ' 0'5 %1% ,(' (13 , ,) ! P >' % ,) ' 4 % ' 1!' ,!' 33!' 6 ' 6 !' J' %13, % ' %' ', ' 5 % !' 3%')$ %' 1!' .!' , !' ,!' (!' E!X' A, ' 3% , ,(' !!# K

!#" ')5 %. $ ' ' %4 , A' A ' 3 5$(,)' 0' , .%K' %' 5, ' ,)' A ' C % ' 6 6' ,)' A ' A 3 ' 0' %) 5% ,) '' A% ' 0' , ,) ' 3A), 4%' (13 5' % C % ' % ' %)5' A$' ($,) '' ' A, ')% ,)' A ' 3% 1' 0' 3 (5)(' ,)' ,1 '% ' % ' A $'A' , ' A $5' 4 ') C' 0 ' %' 0 B' 1) A ')' A ' %',(' A % ' 0' 1 5 1' $ 3 !' % $ % 3%')$ %' $4,' $3 %!

L' ,(!')), ' ,4!' 8, 3!' .!' 1!' ,!' 3!' I ! J 4 %' 5 ' ,.%' 0!' 5 ' % !

<%J<E?ʻ ><?E ʻ+1ʻ .>C1=0 G>ʻ +@>ʻ @<0Dʻ 1'ʻ +@>ʻ .>C <0ʻ <.+ ?+!ʻ J@1?>ʻ B1D>?+ʻ $><#+ >?ʻ <.>ʻ +@.1J0ʻ 0+1ʻ?@<D>ʻ $Eʻ+@>ʻ<B$+1#?ʻ10>?ʻ1'ʻ@?ʻ B +<+1.Tʻ #+!ʻJ +@ʻ <%%ʻ +@?!ʻ %,<?ʻ+.<=>D >?ʻ B#?+ʻ $>ʻ <DB ++>Dʻ +1ʻ $>ʻ >K>P C#+>D!ʻ 10ʻ+@>ʻ J@1%>!ʻJ +@ʻ, =1#.Lʻ <0Dʻ+@>ʻD C+ 10!ʻ 01+J +@?+<0D 0=ʻ +@>ʻ 0<+ 10<%ʻ +>0D>0CEʻ+1ʻ >K<==>P .<+ 10ʻ<$1,>ʻ<%%#D>D ʻ+1!ʻ B<Eʻ$>ʻ =>0>.<%%Eʻ C1B B>0DP >Dʻ '1.ʻ D>C1.#B!ʻ <0Dʻ <0ʻ BA1?0=ʻ D=0+Eʻ F#+>ʻ J1.+@Eʻ1'ʻ+@>ʻ+.<=Cʻ D.<B<Lʻ 0D>>D!ʻ+@>Eʻ B<Eʻ$>ʻ ?>%>C+>Dʻ<?ʻ<''1.D 0=ʻA.1$<$%Eʻ+@>ʻ$>?+ʻ?A>C B>0ʻ1'ʻ +@>ʻA.1=.>??ʻ1'ʻA.1?>ʻC1BA1?+10ʻD#.0=ʻ+@>ʻA.>?>0+ʻ .>=0 M"M

% ,<?ʻ.>A#+<+ 10ʻ%>Dʻ+1ʻ<ʻ? B %<.ʻ B +<+ 10ʻ1'ʻ+@>ʻ <0+F#>Lʻ $#+ʻ+@>ʻ A<0<.D? J>.>ʻ+11ʻ0<+ 10<%ʻ 0ʻ <%%ʻ +@>.ʻ+<?+>?ʻ+1ʻ?<0C+10ʻ+ʻ @>?>ʻC%<??C<%ʻC1BA1P ?+10?ʻDDʻ01+ʻ1$+<0ʻA1??>??10ʻ1'ʻ+@>ʻ?+<=>!ʻ$#+ʻ J>.>ʻC10'0>Dʻ+1ʻ+@>ʻC%1?>+!ʻ?>.,0=ʻ10%Eʻ<?ʻ<ʻ.>%<KP <+10ʻ'1.ʻ+@>ʻB<0ʻ1'ʻ%>++>.?ʻLʻ J@%>ʻ+@>ʻ,1C>ʻ1'ʻ+@>ʻ A>1A%>ʻC1BA>%%>Dʻ<%%ʻ J@1ʻC1#.+>Dʻ+!ʻ+1ʻ<CC1BB1D<+>ʻ +@>.ʻ0,>0+10?ʻ+1ʻ+@1?>ʻ.1B<0+Cʻ'1.B?ʻJ@C@ʻJ>.>ʻ ?#$?>F#>0+%Eʻ D>,>%1A>Dʻ0ʻ?#C@ʻ,<.>+Eʻ1'ʻ$><#+Eʻ$Eʻ +@>ʻ=.><+ʻ A<0?@ʻD.<B<+?+?LZ

Lʻ Aʻ0 B,)'ʻ3% %'ʻ0ʻ F%13ʻ,)ʻAʻE)'%)G%ʻ5ʻ '%1 1))ʻ,1,%ʻ50 1ʻAʻ (%ʻ0ʻ3A(ʻB,ʻA%5Cʻ 4ʻ(A%'5ʻ)ʻAʻ:ʻ@5%; 1%,! W <$>D!E1ʻ1?.#>=1!ʻD>Bʻ C1BA<??10!ʻ01ʻF#>.<?<+<A<.ʻ C10,#>?+.1?C10?>"1?%1?.>?A.<M D>.1?D>%<?@1B<G<?D>'#>=1!ʻ F#>D>0+.1ʻB>ʻ<+1.B>0+<0R >> $.<?D>%,<!Aʻ48

ʻ*13%ʻAʻ5,(,)ʻ0ʻA ʻ %'5,ʻB,Aʻ A%ʻ0ʻAʻ*)>)ʻ3,%,ʻ0ʻ,)%)(ʻ ;1 5ʻ)ʻ0ʻAʻ4ʻ,%C (13,,)ʻ0?A)ʻ!Kʻ,')< %)5ʻʻAʻ%5.%)(ʻ1%5ʻ)ʻ)C,)ʻ A'%3AC4$ʻ,)ʻAʻ .4%ʻ%%)'1)ʻ')%Cʻ %)5ʻAʻBAʻ(13F,)ʻ0ʻAʻ C ! ,ʻ+ B,A%)5,)'ʻ 1ʻ3%;),Aʻ(,,(ʻ%ʻ*$.%ʻ0ʻF%1>

@<,>' 01J' ?#.,>E>D' +@>' D ''>.>0+' H 0D?' 1'' A1>+ C' C %+#.>' '<B %<.' +1' A< 0' #0D>.' >.D 0<0D' <0D' ?<$>%%<' @> .' B1?+' C10?A C#1#?' >%>B>0+' ?' +@>' 0<+ 10<%?A . +' J@ C@' A>.,<D>?' +@>B!' <0D' +@>' >KP C%#? ,>' <++<C@B>0+' J@ C@' +@>E' B<0 '>?+' +1' +@>' A. B P + ,>' '1.B?' 1'',>.? ' C<+ 10' A>C#% <.' +1' +@>' A>0 0?#%<' @>' B1?+' >B<.H<$%>' A1.+ 10' 1''+@ ?' $1DE' 1'' A1>+.E' B<E'D1#$+%>??' $>' C10? D>.>D' +@>' A<0 ?@' ' 1.M$<%%<D?'L' +@<+' A1A#%<.' B 0?+.>%?E!' J@ C@!' C1B B>M' B1.<+ @=&+@>'A C+#.>?F#>'<0D' C@ ,<%.1#?' 0C D>0+?' 1'' +@F' <=>!' .>'%>C+?' B1?+' '< +@'#%%E' +@>' .1B<0+ C' =>0 #?' 1'' +@>' A>1A%>&' J@1'X=<,>' +' #++>.<0C>' @>' %E. C' >''1.+?' 1'' @>'A>. 1D' J>.>' %>??' ?#CC>??'#%L' +@>.>' J>.>' '>J' >%<$1.<+>' <++>BA+?' 0' +@ ?' ' >%D!' 0D>>D!' $E' B>0' 1'' D>C D>D' =>0 #? ' #+' +@>' =.><+' 1$?+<C%>' B<E' $>' '1#0D' 0' +@>' BA>.'>C+ 10' 1'' +@>' %<0=#<=>!' <0D' +@>' D>' C >0CE' 1'' +@>' B1.>' >K<C+' <0D' ' 0 ?@>D' B>+. C<%' '1.B?' 0D ?A>0?<$%>' +1' @ =@' A1>+ C' >K>C#+ 10

@>' J@1%>' A>. 1D!' @1J>,>.!' C1BA.>@>0D 0=' <?' +' D1>?' +@>' ' .?+' D>C D>D' <AA.1<C@>?' +1' <' .>=#%<.' D.<B<!' B<E' $>' .>=<.D>D' <?' ,>.E' BA1.+<0+' 0' <' % +>.<.E' <?P A>C+' L' ? 0C>' +' >K@ $ +?' +@>' 0D =>01#?' A>C#% <. + >?' 1'' <?+ % <0!' % +>.<+#.>' 0' <%%' +@> .' '.>?@0>??!' <0D' ?@1J?

3, 'A%. '.,)5,(% 5' A' 1%),(' 0'%),2$, C' '') % C'0 B; 0 1' 0' A' 5%1%)',(,),0,(' 5'4C' A' %,%) ')5' BA,(A' 3,)(,3 ',',' %33%)' A%' A')%$% C' (11)5',' 0' ' 1 ' $((0$' B,' ,)' A,' A' (A %!' ' A' (%))K' 5, ; 5 3% 1)'A%.'4)'( ) %,) 5' ($ ',)' * .%) ')' #$,F; '%5 3' A 1'AC'3$4,(' 3,),)' ' 1!,,,!' 33!' / J <' 5!' %A' A%)' A,' B)' BA,(A' 5' ,(<J%)5'1 ' F3,(, C' B $5'A%.' $'' 5'%') % ' 3' 5' E '%' 4%' $ %' ,1,%,)' 0' A' (% ,(%'1 5 1!,.!'3!' D !

+1 J@<+ < D>=.>> 1 ">KC>%%>OC> + C1#%D <++< O!& J@ %> #O+1#C@>D $E <OE '1.> =O O'%#>OC> @> A.>?>O+ .> =O B<E $> .>=<.D>D <? +@> >A1C@ J@ CU D , D>? +@> <OC >O+ '.1B +@> B1D>.O ?C@11% 1" A<0 ?@ A1>+.E! O J@ C@ +@> %<0=#<=> J<? ?%1J%E $#+ ?+><D P %E #OD>.=1 O=+@> A.1C>?? 1" .>' O>B>O+! +@<+ Q B<D> +@> HO1J%>D=> 1" +!R +1 $1..1J +@> J1.D? 1" < C1OP +>BA1.<.E C. + C! Q A<?? '1. <O >%>=<O+i<CC1BA% ?@P B>O+! >,>O J +@ +@> C<,<% >.? <OD D<B>? 1" C#%+ ,<+P >D +<%E <OD J@ C@ ' O<%%E =<,>2 '#%%? 1A> +1 +@> A1>+ C +<%>O+ +@<+ .< ?>D +@> % +>.<+#.> 1" +@> C1#OP +.E +1 ?#C@ $. %% <O+ @> =@+? O +@> ? K+>>O+@ C>O+#.E

L Y %) % ,% % ,) %4 A%4 % *% %) !Z ,% %1% (+)) *%4% ' 5 %) '$% 3! D! ,) 3 ') , G% C '% %),%!

A%. A%5 ((% ,) %5. 1 A%))(,) A ($ O A, (A%3 A $3 0,(,% %(2$%,) %)(O A 3%), A (, ,(B, A A % C A, C O A , B) 5 %1% %$ A) ,(1% ,% 0 BA,(A % F 1 C % %)5 5,00,($ O %((% 3 ($5 A F3 (% ,) O %)C A,) " ,@ %% % , 0%(C %(($) O , $ O A 3),) $ %! A) % %33 %(A A, B, A,) 1C @) B; 5' , 1%5 ,) %) % ,(,) A ,'A A $14 O A 1 ; ,(%) #$% C ., B B ,) 4C ! ,(@) % 0 O 5 1 , % $ % 8% .% 5), . , C! A, ') 1%) 5$; ,) "% ,5)(,) A 3),) $ % A%5 . C 0%(, , C 0 3), A,) " A, ,4 % C B, A A 1 ($, %)5 .% $%4 B @ 4 A 3 ,) 5 %)5 1%)$ (,3 ,) A, 5 3% 1) < %)5 A, %C 14 5, ,) %' 4 , O(13% A $ O%' B >5, (5 ,)5$ C BA,(A A A% F3%)5 5 ,) ' % 5 %, ,) A, ($) 3%), A , % $!

5 ,. 5 4 0 A (% 0 A $),. , C! A $4+ (, 5, ; ($ 5 B, A A, $ $% '%)(%)5 3 3,($, C 0 C < %)5 A 0 ,')%)5 ,)5 5 A *% , ,%) (A % 1%C 0,)5 1$(A) . ,)0 1%,) A ,) A ., B 3) 5 0 A % C 3 ' 0 A 5 %1%,(%)5 A A, ,),(% ,) A 3),) $%!

,)(A 3$4 ,(%,) 0 A, % ,(%,)K %, ')' %)5 %)F, $ C F3 (5 :' ,',) 5 % ' 3%) Z A% 1%5 , %33 %%)($)5 A %$ 3,(0 A C% (%5 1C 0 8, C BA,(A A%) ,(A 5 A)%,)% , %$ B, A 1%)C %51, %4 5, ,) 0, %)(,) %$ A ! %,) % ,) A, 3 0%(A% A B% 13 C 5 0 1 A, % , C $ A ,) ((,) ') ,(4 A % A 1 %)5 %4 %5 0 BA% . 1,'A , $ % A ,',) 0 A 3%), A 5 %1%! A $ A%. 4) B . $1 ( ) %,),) ' ,) A 0, 3% %) A, ,(% 5, ($,) B, A %13 F3 %)% C) %)5 %' (%% '$ 0 5 %1%,(3, (0 1 A % , 3 (A 5 B) A ,1 0 3 5 E '% (A) ',(% C % %) ' 5 %)5 %((13%), 5 B, A (, ,(% %)% C %)5 (3, $, $ %,. F %(0 1 3, (0 A ' % 1 ,! A ( )5 3% , ,5 . 5 A 3$4 ,(%,) 0) , 3, (0 .%, $ %$ A BA,(A 0 1 A , F 1 %, C A , F,)( ) C ,) 1%)$ (,3 A%. A%5 4$, (, ($%,)! A (,) A $'A $ % 1%5 B, A A%(% 0$ 5, (,1,)%,) BA,(A $ 5 0 1 3 ,(%) (14,) 5 B, A F) ,. %)5 A $'A $5, ,)! A (, ,(, 1 % A $'A 1 ,1 B% 3 5 4C A 3 ($,% 5 %1%,(3 ,)(,3 0 A %$; A % ( )5$(5 ,) ') %' B, A ' %'0%,) < %)5 %13 4$) F %.%'%) (1 1)5%,) , 4 B 5) 3 5$(,) BA 1 , 4 3 3 C %33 (,% 5 1$ 4 B ,'A 5 4C) ( ). ; %) B, A A (A% %(%)5 ,) ($% ($ $ 0 A 3 , 5! A B @ $)0 $)% C 5,5) (,. A % $(A 0, %$ A %)5 $)5 $4 5C 1 A,) ' 1%C 4 0 $)5 B%) ,) ' A 0$ (13 ,) 0A, 5 ,')!)' A BA ', 1$ 4 ' ( ) ,5 5 % %' ,(A 3 C 0 5 *% , ,%) , %,> 1(A 0, 0 A 1 % %)5 ( )5,)% $ 5, (5 A , $ %,) 0%' 5 3% ; 1) A% A% A, A 4) $00 5 %) '$, A ,) A B 4 ($, C < 4$ BA,(A ,) B % %) ' 5 A% , 1%C 4 ' ( ) 1; 3% 5 % , B $)5) % 3 (%)5 , % 1 , %((% C 5 1,) 5!

5 ʻ ʻ

6: O 8 9

8 ʻ ʻ 9 8 ʻ 8 ʻ ʻ : N ʻ ʻ 8 ʻ
*8 ʻ 8 E :ʻ ʻ * ʻ 8 ʻ 8ʻ ;
ʻ ʻ ʻ ʻ *8 ʻ ʻ * E ʻ ʻ * ;
ʻ< ʻ 8 ʻ ʻ :ʻ ʻ * ;
ʻ 8 ʻ : ʻ *Cʻ ʻ ʻ ʻ ;
!

5

9 J : !E 9 ! J E
* 8 E * !

6: O 6:8

$ @<,> 01J .><C@>D +@<+ &B>B1.<$%> >A1C@! J@>0 +@> D ''>.>0+ 0<+ 10? 1'' #.1A>! ?#.B1#0+ 0= +@> $<.. >.? J@ C@ @<D @ +@>.+1 C10' 0>D +@>B J +@ 0 +@> . .>?A>C+ ,> % B +?! $.1#=@+ +@> . '1.C>?! <? ''$E < ? B#%+<0>1#? BA#%?>! <=< 0?+ ><C@ 1+@>. 10 < C1BP B10 +@><+.> 1'' <C+ 10 0 +@> A.>C>D 0= A<.+ 1'' +@ ? J1.H! J> @<,> ?>>0 0 J@<+ B<00>. A< 0 J<? A.>P A<.>D '1. +@> C10+>?+! $E +@> C10C>0+.<+ 10 1'' @>. ,<. 1#? ?+<+>? #0D>. 10> =1,>.0B>0+! <0D $E ?#C@ 0+>.0<% .>'1.B? <? >0<$%>D +@> =1,>.0B>0+ +1 <C+ J +@ , =1#. @> =>0 #? 1'' >.D 0<0D J %% <AA><. <? A.>D1B 0<0+ 0 J@<+ C10C>.0? +@> '1.> =0 .>%<P + 10? 1'' +@> C1#0+.E! <? D D +@<+ 1'' ?<$>%%< 0 +? 0+>. 1. <DB 0 ?+.<+ 10 ?1 B#C@& ?1! 0D>>D! +@<+ +@> <CC#.<+> <0D J>%%M 0'1.B>D @ ?+1. <0! J@1 @<? B1?+ C1A 1#?%E %%#?+.<+>D +@ ? A1.+ 10 1'' +@> 0<+ 10<% <00<%?! D1>? 01+ >,>0 B>0+ 10! 0 @ ? 0+.1D#C+1.E 01+ C>! +@> 0<B> 1'' ?<$>%%<L .>'>.. 0= +@> <=>0CE 0 +@>?> >,>0+? >KC%#? ,>%E +1 @>. B1.> <B$ + 1#? C10M

?1.+ T 0 +@ ? @> ? <$#0D<0+%E "#?+ ' >D $E +@>
A.>,< % 0= C@<.<C+>. 1 +@> A1% CE A#.?#>D! J D>%E
D ''>. 0= '.1B +@<+ J@ C@ D ?+ 0=# ?@>D +@> F#>>0 ?
B><?#.>?! <0D $E +@> C .C#B?+<0C> +@<+ +@> '1.> =0
C10F#>?+?! <%+@1#=@ <C@ >,>D $E +@> #0 +>D >''1.+?
1 $1+@ C.1J0?! J>.> #0D>.+<H>0 10 $>@<%'1 >.D P
0<0D ? 1J0 D1B 0 10? 1 .<=10! +1 J@ C@ 0 +@>
>0D +@>E >KC%#? ,>%E <AA> +< 0>D

@> C%1?> 1 +@> ' '+>>0+@ C>0+#.E A.>?>0+?! 10 +@>
J@1%>! +@> B1?+ ?+. H 0= A1 0+ 1 , >J 0 B1D>B
@ ?+1.E 10> '.1B J@ C@ J> B<E C10+>B A%<+> +@>
C10?#B B<+ 10 1 T<0 BA1.+<0+ .>,1%#+ 10T 0 +@>
?+.#C+#.> 1 A1% + C<% ?1C >+E! <0D +@> ' .?+ <AA C<P
+ 10 1 ?>,>.<% 0,>0+ 10? D>?+ 0>D +1 >K>.C ?> +@>
J D>?+ 0'%#>0C> 10 @#B<0 C , % ?<+ 10 @> '>#D<%
0?+ +#+ 10?! 1. .<+@>. +@> '>#D<% A. 0C A%>! J@ C@
1A>.<+>D >,>0 J@>.> +@> 0?+ +#+ 10?! ?+. C+%E ?A><HP
0=! D D 01+ >K ?+! <'+>. @<, 0= J.1#=@+ +? <AA1 0+P
>D #?>?! @<D =.<D#<%%E '<%%>0 0+1 D>C<E L '1. + @<D
01+ +@> A1J>. 1 <CC1B B1D<+ 0= +?>%' +1 +@> 0P
C.><?>D D>B<0D? <0D BA.1,>D C10D + 10 1 ?1C >+E
1J>,>. J>%% ?# +>D +1 < $<.$<.1#? <=>! + J<?
'1#0D +@<+ +@> D ?+. $#+ 10 1 A1J>. <B10= +@>
B>B$>.? 1 <0 0D>A>0D>0+ <. ?+1C.<CE J<? #0'<P
,1#.<$%> +1 +@<+ D>=.>> 1 A>.?10<% ?>C#. +E <0D
+.<0F# %% +E 0D ?A>0?<$%> +1 =.><+ A.1' C >0CE 0 +@>
@ =@>.<.+? 1 C , % ?<+ 10 + J<?>F#<%%E .>A#=0<0+
+1 +@> A. 0C A%> 1 A<+. 1+ ?B! ?1 >??>0+ <% +1 0<+ 10<%

Q N$, % 8, ,% 5 8 C)8)%)5 * % ,(,4 ,!
,) 5!

0D>A>0D>0C>L $#+ J@ C@ B#?+ @<,> 1A>.<+>D '>>$%E <B10= < A>1A%> J@1?> ?EBA<+@ >?! 0?+><D 1'' $> 0= C10C>0+.<+>D 10 +@> ?+<+>! J>.> C%< B>D $E < @#0P D.>D B<?+>.?! <? J<? +@> C<?> 0 >,>.E '>#D<% C1BP B#0 +E @> C10, C+ 10 1''+@ ? .>C10C %>D +@> 0<+ 10 +1 +@> +.<0?'>. 1'' <#+@1. +E 0+1 1+@>. @<0D?L 01+ +@1?> 1'' +@> A>1A%>! 0D>>D! J@1 J>.> +11 =01.<0+! <0D +11 %10= <CC#?+1B>D +1 < ?#$1.D 0<+>! D>A>0D>0+ ? +#<+ 10! +1 <DB + 1'' +!O $#+ 0+1 +@> @<0D? 1''+@> ?1,>.> =0 + J<? 01+ #0+ % +@.>> C>0+#. >? B1.> @<D >%<A?>D! +@<+ +@> C10D + 10 1''+@> =.><+ B<??&1'' +@> A>1A%> J<? +1 $> ?1 '<.' BA.1,>D <? +1 F#<% 'E +@>B '1.' <??>.+ 0= <0D B< 0+< 0 0= +@> A1% + C<% C10P ? D>.<+ 10 J@ C@ 1''. =@+ $>%10=? +1 +@>B &

0 J@<+>,>.' D>=.>> A#$% C 1A 0 10 <0D +@> A.1P =.>?? 1''>,>0+? B =@+ '<,1#.' +@> +.<0?+ 10 1''A1J>.' '.1B +@> <. ?+1C.<CE +1 +@> B10<.C@! + ? 1$, 1#? +@<+ B#C@ J1#%D D>A>0D 10 @ ? A>.?10<% C@<.<C+>.! ? 0C> +@> <D,<0+<=>? 1''@ ? ?+<+ 10 <%10> B<D>@ B $E 01 B><0? < B<+C@ '1.' +@> C1B$ 0>D '1.C>? 1''@ ? =.><+ 01$ % +E @> .>B<.H<$%> <D<A+<+ 10 1'' +@> C@<.<C+>.' 1'' +@> A. 0C A<% ?1,>.> =0? 1'' #.1A> +1 +@ ? >K =>0CE! 0 +@> %<++>.' @<%''1''+@> ' '+>>0+@ C>0P +#.E! J1#%D ?>>B +1 @<,> ?1B>+@ 0= A.1, D>0+ <% 0 + > >0.E ' 1'' 0=%<0D! 1# ? ; ' 1'' .<0C>! + >.D 0<0D 1'' <A%>?! /1@0 ' 1'' .<=10! <0D @ ? ?10 >.D 0<0D! <0D /1@0 ' 1'' 51.+#=<%! @1J>,>.' M D ''>. 0= 0 1+@>.' .>?A>C+?! J>.> <%% D ?+ 0=# ?@>D $E [! < ?<=<C +E J@ C@ >0<$%>D +@>B +1 D>, ?> +@> B1?+ ?#$+%> <0D C1BA.>@>0? ,> ?C@>B>? 1'' A1% CE!& <0D

J@ C@ J<? A.1% ' C O >KA>D >O+? '1. +@> C .C#B ,>OP + 1O 1 >O>B >? +11 A1+>O+ +1 $> >OC1#O+>.>D $E 1A>O '1.C>

@> . 1A>.<+ 1O?! <%% D .>C+>D +1J<.D? +@> ?<B> A1 O+! J>.> <++>OD>D J +@ ? B %<. ?#CC>??! .>?#%+ O= O +@> >K<%+<+ 1O 1 +@> .1E<% A.>.1=<+ ,> <+ +@> >KA>O?> 1 +@> <. ?+1C.<CE! J +@ B1.> 1. %>?? D>'>.P >OC> +1 +@> . =@+? 1 +@> A>1A%>! <? +@> C<?>! B =@+ $>L O .<OC>! '1.&>K<B A%>! J +@ <%B1?+ +1+<% OP D '>.>OC> +1 +@>B! J@ %> O A< O +@>E J>.> .>P =<.D>D! #OD>. +@> A<.>O+<% <DB O ?+.<+ 1O 1 ?<$>%%<! J@ C@ +>BA>.>D +@> %>??&?C.#A#%1#? A1% CE 1 @>. @#?$<OD! J +@ +>OD>.O>?? <OD .>?A>C+ O >,>.E C1#O+.E! @1J>,>.! +@> O<+ 1O <+ %<.=> =< 0>D =.><+%E $E +@> .>,1%#+ 1O! J@ C@ C<B> 1O O?>O? $%E! <+ %><?+ J +@1#+!<OE , 1%>O+ ?@1CH +1 +@> '<$. C 1 ?1C >+EL <OD J@ C@! $E ?>C#. O= O'>.O<% +.<OF# %% +E <OD +@> <?C>OD>OCE 1 %<J 1,>. $.#+> '1.C>! =<,> <BA%> ?C1A> '1. +@1?> O+>%%>C+#<% A#.?# +? J@ C@ J +@D.<J B<O. H OD '.1B ?>O?#<% OD#%=>OC>! <OD +11 >KC%#? ,> D>P ,1+ 1O +1 +@> <0 B<% J<O+? 1 1#. O<+#.>

1 ?11O>. J<? +@> O+>.O<% 1.=<O G<+ 1O 1 +@> D ''>.>O+ O<+ 1O? 1 # .1A> A%<C>D 1O < ?>C#.> $<? ?! +@<O +@>E '1#OD %> ?#.> +1 D .>C+ +@> . , >J?! @ P +@>.+1 C1O' O>D J +@ O +@> . 1JO % B +?! +1 < $1%D>. <OD B1.> D ?+ O+ ?A@>.> 1 <C+ 1O @> . O+>.O<P + 1O<% C1B B#O C<+ 1O J<? =.><+%E '<C % +<+>D $E ?>P ,>.<% #?>'#% O,>O+ 1O? C1 OC D>O+ J +@ +@ ? A>. 1D! 1. +@>O ' .?+ >K+>O? ,>%E <AA% >D #C@ J<? +@> <.+ 1 A. O+ O=! D ''#? O= HO1J%>D=> J +@ +@> ?A>>D <OD

%0 ,>.?<% +E‘ 1’‘ % =@+L‘ +@>‘ >?+<$% ?@B>0+‘ 1’‘ A1?+?!‘ J@ C@‘ <'+>.‘ +?‘ <D1A+ 10‘ $E‘ 1# ?‘ ; ‘ C<B>‘ 0+1‘ '.>F#>0+‘ #?>‘ 0‘ +@>‘ $>= 00 0=‘ 1’‘ +@>‘ ? K+>>0+@‘ C>0P +#.E‘L‘ <0D‘ %<?+%E!‘ +@>‘ C1BA<??!‘ J@ C@!‘ =# D 0=‘ +@>‘ B<. 0>.‘ U#0>.. 0=%E‘ +@.1#=@‘ +@>‘ +.<CH%>??‘ J<?+>?‘ 1’‘ +@>‘ 1C><0!‘ $.1#=@+‘ +@>‘ .>B1+>?+‘ .>= 10?‘ 0+1‘C10+<C+‘ +@‘ +@>?>‘ 0C.><?>D‘ '<C % + >?‘ '1.‘ 0+>.C1B B#0 C<P + 10!‘ +@>‘ D ''>.>0+‘ #.1A><0‘ ?+<+>?‘ B =@+‘ $>‘ ?< D‘ +1‘ $>‘ $.1#=@+‘ 0+1‘ <?‘ 0+ B<+>‘ .>%<+ 10‘ J +@‘ 10>‘ <OP 1+@>.‘ <?‘ +@>‘D ''>.>0+‘ A.1, 0C>?‘ 1’‘+@>‘?<B>‘H 0=D1B‘ J>.>‘ $>'1.>‘ @>E‘01J‘ '1.‘ +@>‘ ' .?+‘ + B>‘ .>=<.D>D‘ ><C@‘ 1+@>.‘ <?‘ B>B$>.?‘ 1’‘10>‘ =.><+‘C1B B#0 +E!‘ 0‘ J@1?>‘ <C+ 10‘ +@>E‘ J>.>‘ <%‘ B#+#<%%E‘C10C>.0>D‘ ‘ =.><+>.‘ <0K >+E‘ J<?‘ B<0 '>?+>D‘ +1‘ D>+>C+‘+@>‘?A. 0=?‘ 1’‘ >,>.E‘ A1% + C<%‘ B1,>B>0+‘ 1’‘ +@> .‘ 0> =@$1#.?‘ ?? 10?‘ $>C<B>‘ '.>F#>0+L‘ <0D‘ <CC.>D +>D‘ <=>0+?‘ J>.>‘ ?+<+ 10>D!‘ <?‘ <‘ ?1.+‘ 1’‘ @101#.<$%>‘ ?A >?!‘ <+‘ +@>‘ D ''>.>0+‘ C1#.+?‘ @>‘ ?C >0C>‘ 1’‘D A%1B<CE!‘ 10‘ 0<.P .1J>.‘ =.1#0D?!‘ 0D>>D!‘ +@<0‘ 01J‘ A.<C+ ?>D!‘$>=<0‘ +1‘ $>‘ ?+#D >D T‘ C@>B>?‘ 1’‘<==.>?? 10‘ <0D‘ .>? ?+<0C>!‘ %><D 0=‘ +1‘ A1% + C<%‘ C1B$ 0<+ 10?!‘ +@>‘ B1?+‘C1BA%>K‘ <0D‘ >K+>0D>D!‘ J>.>‘ =.<D#<%%E‘ '1.B>D‘ >‘ <.>‘ 01+‘ +1‘ B<= 0>!‘ @1J>,>.!‘ +@>‘ >K ?+>0C>‘ 1’‘ <0E‘ J>%%‘ D>M

L‘ A‘ '%G,) ‘ ‘ 00,(,%‘ ,)’‘ A‘,) , ‘B @,)’‘ 0‘A‘ (3)5)(‘ 0‘ %(A,%. ,‘ ’ .)1) ‘B, A‘BA 1‘A‘ ; BA, ‘ %,) 5‘%‘ A‘5,00)‘ ,5 5‘ A%)‘, ‘ ‘4‘0 $)5‘,)‘%)C‘ $ 3 %)‘($ ‘ 1%C‘4‘ '% 5; '$%‘ A, C‘ %)5‘, ‘ A B‘ 5‘%‘ A‘1 ‘(13 ‘1%)$%‘ A‘.% ,W C‘%)5‘ F) ‘ 0‘5$, ‘ 0‘5,3 1%(C‘%‘, ‘ F, 5‘%‘ A‘ % %(A 5‘ A‘ 00,(‘ 0‘ ,5)‘ 4 ‘,)),)’‘ 0‘ A‘ ,F) A‘ ( ); 1,), ‘0 1‘ A‘0, ‘1 1)‘ $ C!‘ ‘ %00 5‘ 1 ‘(3, $‘ 0‘, ‘(%,)! S %)5‘($, $‘,)0 1%,)‘ 3 (;

' 0>D D><? 1'' < $<%<0C> 1'' A1 J >. ' <+ +@ ? >< .%E A>. 1D
@> 1$">C+ A'' +@>?> C1 B $ 0<+ 10? J <? ?1 B > A1? + , >
<C+ 1'' <==.>?? 10 1. ' .>? ?+<0C>! '1. ' A#.A1?>? 1'' C10P
F#>?+ 1. D>'>0C>! 01+ '1. ' +@> B< 0+>0<0C> 1'' <0E
<$?+.<C+ +@>1.E 1'' A1% + C<% >F# % $. # B @ ? J <?
+@> .>?#%+ 1'' B #C@ D>>A>. ' .>'%>C+ 10! <0D A.1%10=>D
>KA>. >0C>

@> B<0<=>B>0+ A'' +@> '1.> =0 .>%<+ 10? 1'' +@>
0<+ 10! <+ +@> C%1?> 1h+@> ' '+>>0+@ C>0+#.E! J <? .>P
? =0>D J @1%%E +1' +@> ?1 , >.> =0 @> A>1A%> <+ %<.=>
+11H 01' '#.+@>.' A<.+ 1.' 0+>.>?+ 0 +@> B<++>.! +@<0
'' + @<D C10C>.0>D 10%E +@> D ?A1? + 10 1'' @ ? A. , <+>
A.1A>.+E ? B><?#.>? J >.> +@>.>'1.> 1'+>0T C@<P
.<C+>. ?>D $E < D>=.>> 1'' +>B >. +E <0D A.>C A +<+ 10
+@< C1#%D 01+ @<, > $>>0 A>. B ++>D #0D>.' +@> ?<%#P
+<.E C@>CH? <''1.D>D $E A1A#%<.' 0+>.A1? + 10
?+.<0=> 0?>0? $ % +E! 0D>>D! J <? ?@1 J 0 +1' +@> . =@+?
<0D 0+>.>?+? 1'' +@> 0<+ 10 L J <.' J <? .>=<.D>D <? <
=<B > 0 J @ C@ +@> ?1 , >.> =0 A<.+ >? >0=<=>D! 01+ 10
$>@<%'' 1''+@> .' ?#$">C+?! $#+ >KC%#? , >%E 10 +@> .' 1 J 0
H> D>?A>.<+> =<B$%>.?! +@>E C10+>0D>D '1.' +@>
?A1 %?! 1.' +@> @101#.? 1'', C+1.E! J +@ ?1' B#C@ +@>"
B1.> .>CH%>??0>?? <? +@> .' 1 J 0 ?+<+ 10 J <? +11' >%>P
, <+>D +1' $> B<+>. <%%E A.>"#D C>D $E +@> .>?#%+?
@>E C10+>0D>D J +@ <%% +@> <0 B1? +E 1'' A>.?10<%
'>>% 0=L >, >.E D>, C>! @1 J >, >.' A<%+.E! J <? .>?1.+>D
+1' L <0D 01' <D, <0+<=> D>>B>D #0 J <. .<0+<$%>! J @ C@
C1#%D +>0D +1' ?>C#.> +@> , C+1.E @> B1?+ A.1'% P
=<+> B<K B? 1'' ?+<+> A1% CE J >.> 1A>0%E <, 1 J >D
$E B>0 1'' .>A#+>D @101#.' <0D 0+>=. +E 0 ?@1.+

+@>‘ D A%1B<CE‘ 1’‘ +@<+‘ D<E‘ ?‘ ,>.E‘ =>0>.<%%E‘ C@<.<CP
+>. ?>D‘ $E‘ <‘ D>=.>>‘ 1’‘ %1J‘ C#00 0=!‘ ?#$+>.’#=>!‘ <0D‘
A>++E‘ +. CH>.E!‘ J@ C@‘ J1#%D‘ %><,>‘ <0‘ 0D>% $%>‘ ?+< 0‘
10‘ +@>‘ +.<0?<C+ 10?‘ 1’‘A. ,<+>‘ 0D , D#<%?

+<%E‘ J<?!‘ D1#$+%>??!‘ +@>‘ =.><+‘ ?C@11%‘ J@>.>‘ +@ ?‘
A1% + C<%‘ B1.<% +E‘ J<?‘ +<#=@+’ @<+‘ C1#0+.E‘ J<?‘
$.1H>0‘ #A‘ 0+1‘ <‘ 0#B$>.’ 1’‘A>++E‘ ?+<+>?!‘ +11‘ 0><.%E‘
>F#<%‘ +1‘ <%%1J‘ +@>‘ <$?1%#+>‘ ?#A.>B<CE‘ 1’‘ <0E‘ 10>L‘
J@ %>!‘ <+‘ +@>‘ ?<B>‘ + B>!‘ +‘ D>B<0D>D‘ +@>‘ B1?+‘ .>?+P
%>??‘ , = %<0C>‘ 10‘ +@>‘ A<.+‘ 1’‘><C@‘ +1‘ B< 0+< 0‘ +?‘ 0P
D>A>0D>0C>‘ <=< 0?+‘ +?‘ 0> =@$1#.?’ @>0C>‘ ?#C@‘ <‘
C1BA%>K +E‘ 1’‘ 0+. =#>?‘ <0D‘ C1B$ 0<+ 10?‘ <?‘ +@>‘
J1.%D‘ @<D‘ 0>,>.’ $>’1.>‘ J +0>??>D’ ’ ?#$+%>‘ .>P
’ 0>D‘ A1% CE‘ J<?‘ C10’1.B<$%>‘ +1‘ +@>‘ =>0 #?‘ 1’‘ +@>‘
+<% <0?L‘ +‘ J<?‘ A<.+%E‘ +@>‘ .>?#%+!‘ B1.>1,>.!‘ 1’‘+@> .’
@ =@>.’ C#%+ ,<+ 10!‘ J@ C@‘ 0<+#.<%%E‘ %>D‘ +@>B‘ +1‘ +.#?+‘
+@>‘ ?>++%>B>0+‘ 1’‘+@> .’ D ?A#+>?‘ +1‘ ?#A>. 1.’ 0+>%%>CP
+#<%‘ D>K+>. +E!‘ .<+@>.’ +@<0‘ +1‘ $.#+>‘ ’1.C>!‘ % H>‘ +@>‘
7 ‘ $>E10D‘ +@>‘ %A? T‘ .1B‘ +@>?>‘ <0D‘
1+@>.’ C<#?>?!‘ B<K B?‘ J>.>‘ =.<D#<%%E‘ >?+<$% ?@>D!‘ ?1‘
B10?+.1#?‘ 0‘ +@A .’ 0<+#.>‘ <?‘ +1‘ = ,>‘ +@>‘ J1.H‘ J@ C@‘
’ .?+‘ >B$1D >D‘ +@>B‘ 0‘ <‘ .>=#%<.’ ?E?+>B!‘ +@>‘ < .’ 1’‘<
?<+ .>‘ .<+@>.’ +@<0‘ <‘ ?>. 1#?‘ A>.’1.B<0C>!‘ J@ %>‘ +@>‘
0<B>‘ 1’‘ +?‘ <#+@1.’ @<?‘ $>>0‘ C10,>.+>D‘ 0+1‘ <‘ $EP
J1.D‘ 1’‘A1% + C<%‘ H0<,>.E ’

L‘ Y‘ 5‘ 5,$ [‘ %C‘ % $ ‘ 8‘ $)‘ 5 1$1‘ 3 ,($ ‘ % 2$ ‘
) ,(,)’‘ A‘ ,1,%‘( ) 2$)(‘) ’ ,,‘ ( ),3 $1‘ ‘,)‘ A ‘
0‘,)(% 5‘ 0,) 1)‘ %1)’‘ 3$,10,1‘,)’),$1‘3 !Z ›‘
A‘ %)(,) ‘ Z‘ 1%')$1‘ ,) ‘ $1‘ *%,,)% ,$1‘ (%3f ,f ,,›‘
1 % ‘(%1)‘,$, ‘.,) ‘(; ‘ %(A,%. ,K‘ 3 , ,(%‘ %;
3 , ‘%)‘.., $ ‘%),)+,‘ ‘ 1, ›‘ , ‘A, ‘Y‘ ,)(,3 ‘Z %)5‘Y , ›‘
% , ‘ 1%',‘ 3 (5 ![‘ $‘ $‘ $ (‘ 3 % , ‘ ,., [‘ BA,(A

+ +@ A>. 1D $>'1.> #?! +@> A. 0C A<% ?+<+>?' 1'
+<%E J>.>! +@> .>A#$% C?' 1' >0 C> <0D %1.>0C>! +@>
D#C@E 1' %<0! +@> A<A<% ?>>! <0D +@> H 0=D1B 1'
<A%>? @> 1+@>.?' B<E $> .>=<.D>D B>.>%E <?
?<+>%% +>?! .>,1%, 0= .1#0D ?1B> 10> 1. 1+@>.' 1' +@>?>
?#A>. 1. A1J>.?! $E J@1B +@> . .>?A>C+ ,> B1,>P
B>0+? J>.> .>=#%<+>D <0D C10+.1%%>D >0 C>T B<E
$> C10? D>.>D <? +@> B1?+ '1. B D<$%> 1' +@> =.><+
A1J>.?! +<H 0= 0+1' C10? D>.<+ 10 @>.' J><%+@! @>.'
A1J>.'#% 0<,E! @>.' %<0D>D +>.. +1.E 0' +@> 1.+@!
<0D A. 0C>%E C1%10 <% D1B< 0 @>.> J<? 01 =1,>.0P
B>0+ 0 +@<+ <=> J@ C@ <++.<C+>D ?#C@ =>0>.<% <DB P
.<+ 10! $1+@ '.1B 0<+ ,>? <0D '1.> =0>.?! J@1' ?>>B
>F#<%%E +1 @<,> %11H>D #A10 + <? <''1.D 0= +@> ,>.E
$>?+ B1D>% 1'' A1% + C<% J ?D1B LT E>+ +@>.> J<? 01
C1#0+.E J@>.> +@> C + G>0 >0"1E>D %>?? A1? + ,> '.>>P
D1B L 010> J@1?> '1.> =0 .>%<+ 10? J>.> C10D#C+>D
J +@ B1.> <$?1%#+> ?>%' ?@0>??! <0D J +@ < B1.> 0<.P
.1J! $<.=< 0 0= ?A . +! ?<,1#. 0= .<+@>.' 1'' < C1.0M

%33 % 5 %0 'A,' 5 % A' F(, 5
) ' (%)5%' % ' A ' ,1 ' 0 A , '
3$4 ,(% ,)! A C (%1 ' ,) '
A 'B 5',)5 5'0 1' A '3);
,0,(%' 3 '!$)5 ' A '3 ,., '
0 A ' ,),)'' 3 3 ' * 1)'
E ! ' B%') ' $) , ' A, C'
C % ' % ' A%' A C B '3 %(5
)' A ')5 F' %)5' A, ') '0 1'
%)C' F(3 ,) ' %@)' %' A ',1;
1 %, C' 0 A , ' 5 (,) ' %>
:,)'$) 'A%' B '3 . 5'P8, !
, %, ' 1! .,,,! 33! !
/D X 4$' 0 1' A ',13$%,) '
A C' ( ) %,) 5')' A ' ($ ' 0
1 !

0' 8' 2$ ')%5 ' ') ,%
5 ' E) (,%A [%C ' :)G% '
5 ' ., 5 ' Y' 5)5 ' 1 ' 3% ('
%' 1,' 2$ ' % (',5 ' 5 ' '
%4 ' ' 3 $5)(,% 5 ' ' A 1>
A ' A$1%) < 3 2$ ' ' %
') ' 5 ' 1$)5 ' 2$ ' 1 + ' '
%A ' ' A 1% < ' % 3$4 ,(% '
2$ ' 1% ' , 13 ' A%' 5$ %5 ')' '
1$)5 ' 3 ' %' 4$)% 0 1% 5 '
$ ',1,) ' '5)5 ' ( )' 1 ;
+ ' 1%) % A%)' ' A 14 ' .,>
.,5 ')' (5,+)$),5%5 ,)') '
 C \ (! #$,)($%')% ' !
% ! ' 2$,)(! ' 5,% ! DD!

A<0E 1' +.<D>.? +@<0 1' < =.><+ <0D A1J>.'#% ?+<+>
#+ <%% +@ ? J<? C1BA>0?<+>D! 0 +@> >E>? 1' @>.
C10+>BA1.< >?! $E +@> ?+<$ % +E 1' @>. 0?+ +#+ 10?!
J@ C@ ?+ %% .>B< 0>D #0?@<H>0 <B D?+ .>,1%#+ 10?
J@ C@ @<D C10,#%?>D 1. 1,>.+#.0>D >,>.E 1+@>. ?1P
C <% '<$. C 0 +<%E T

@> =1,>.0B>0+ 1' %<0 J<? <+ +@ ? + B> #0D>.
+@> D .>C+ 10 1' 1D1, C1 '1.G<! 1. 1D1, C1 +@>
11.! <? @> ? C1BB10%E C<%%>DL <0 >A +@>+ ?#=P
=>?+>D $E @ ? C1BA%>K 10! $#+ J@ C@ @> J %% 0=%E .>P
+< 0>D <? 0D C<+ 0= +@> ?#A>. 1. C.<'+ 0>?? 10 J@ C@
@> ,<%#>D @ B?>%' ' > @>%D +@> .> 0? 0 +@>0<B
1'@ ?0>A@>J! +@>0 < B 01.! #0+ % <C10,>0 >0+ ?><P
?10 ?@1#%D <.. ,> '1. <??#B 0= +@>B 0 @ ? 1J0
? C11% A>.' D 1#? C@<.<C+>. J<? ?+< 0>D J +@ +@>
J1.?+ , C>? 1' +@> B1?+ A.1'% =<+> C%<?? 1' +<% <0
?+<+>?B>0 0 +@<+ A>. 1D

@>! C>0+.<% A<.+? 1' +<%E J>.>W1CC#A >D $E +@>
.>A#$% C 1' %1.>0C>! J@ C@ @<D >,>. $>>0 +@> .<%%EP
0= A1 0+ 1'+@> '. >0D? 1' '.>>D1B! +11 1'+>0 1' '<CP
+ 10! $#+ J@ C@ @<D 01J .>? =0>D +?>%'+1 +@> D1B M

Q 0 % ZA ,)( ) BA,(A
3 %)5 3 , ,(,%) A%. 00 5
A #$) 0 A 5 ,% ,(
)), 1 F2$, , A%) A%
( ). C 5 ,) A 0 B ,)
BA %))%G%) ,(A 3 ;
, ,) % A 4$ B% @ 0 *A , ;
)5 1!

Y)% % $1 ',)% % % 3$ >
(A ,1% 1
,T 1$ % 2$f), 2$ 5 >
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$,4, . ' (, . 0%(, <
5 ($ - $F
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2$%1 4% 4% , %) 4,))
,13 %
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1,(% -[
A>.< <+ 0<!%$!
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+ #CC<.D0! ?+1.<D%+<M
%<!+1B %$ A 69L >D

E ! !

7

0 10 1 +@> >D C ! J@1?> C#%+ ,<+>D +<?+>? <0D B#0 ' C>0+ A<+.10<=> ?@>D < ?A%>0D D %%#? 10 1,>. +@> . <DB 0 ?+.<+ 10 J@ C@ @<? $% 0D>D +@>X>E>? 1 C10+>BA1.<. >? <0D >,>0 1 A1?+>. +E

@> A<A<% C@< . J<? ' %%>D $E %>K<0D>. ! < A10+ ' J@1?> % C>0+ 1#?0>??! <,<. C>! <0D #0$%#?@ 0= >''.10+>.E! @<,> $>>0 +@> +@>B> 1 #0B 0=%>D .>P A.1<C@ J +@ <+@1% C <? J>%% <? 5.1+>?+<0+ J. +>.? ? A.>'>.B>0+ J<? >''>C+>D $E %<, ?@ $. $>.E! <0D $E @ ?C10?#B B<+> <DD.>??! <? J>%% <? >0>.=E 1 C@<P .<C+>. %+@1#=@ < 0<+ ,> A<0 <.D! @ ? >%>C+ 10 J<? >K+.>B>%E #0A<%<+<$%> +1 >.D 0<0D <0D ?<P $>%%<! J@1 D>A.>C<+>D +@> ?C<0D<% + B#?+ $. 0= #A10 +@> C@#.C@! <0D J@1 @<D % ++%> +1 @1A> '1. +@>B?>%,>?! 0 < A1% + C<% , >J! '.1B +@> >%>,<+ 10 1 10> 1 +@> . 1J0 ?#$">C+? >,>0! J@1?> B>.C>0<.E ?A . + A%<C>D @ B <+ +@>C10+.1% 1 +@> @ =@>?+ $ DP D>. T

@> ><A1% +<0 ?C>A+.> J<? ?J<E>D $E >.D 0<0D ! ?10 1 %A@10?1 ! +@> #0C%> 1 >.D 0<0D 1'& .<=10! <0D J@1 @<D 1$+< 0>D +@> C.1J0 $E +@> <D1A+ 10 1 /1<00< 1 <A%>?! 1. .<+@>. $E @ ? 1J0

L ! % C 3$ 3, % $1 3! (F,F! (FF,,,! J $ C 8, ((,% ,2$ ( ) 1! 1! FF,. ,4! (F.,,! 3! 6D6! % C TA ! ,5)(%)5 %)@ % A 3%), A ($ '%. A,1 %((A 4 $ (0 ,)0 1% ,) % A 3$,) BA,(A A) B 3),00 B% A 5 A F3 A,1 0,)) 0 A, *% 5,)% 0 G% BA A%5 % , 5 % A,

(,) ,) A 0 B,) Lg1 2$,. (% %) '$%' 8 5 A (A%4 3 ,)(3 , $, ,1))3 %($, 1 , ',4$ 3) ,0,(% $1%5 F%)5 $1 2$%1 .,, $1 5, ,)% ,$1 3 .), ! E) $)%12$) , ,$ ($3,5, %) %14, ,) P2$ 5 ' %.,$ X 1 , , 0, ,% , *A , ,%)%1 ,',) 1 ,) 3 (3 %A% ![3! (F,F!

=11D' ?J1.D' %A@1&O?1' ?>++%>D' @ ?' C1OF#>?+' 1O' @ ?' %%>= + B<+>' ?1O' >.D O<OD!' +1' +@>' A.>"#D C>' 1'' +@>' . =@+?' 1'' .<=1O!' $E' J@1?>' $%11D' <OD' +.><?#.>' @>' @<D' <C@ >,>D' +' >.D O<OD ?' C@<.<C+>.!' +@>' ,>.E' 1AA1? +>' 1'' @ ?' O1$%>' '<+@>. ?!' J<?' D<.H!' J %E!' <OD' '>.1C 1#?' ?' % '>' J<?' ?A>O+' O' C1O'% C+' J +@' @ ?' =.><+' '>#D<%' O1$ % +E!' B<OE' 1'' J@1B' ?#AA1.+>D' +@>' A.>+>O? 1O?' 1'' +@>' O=>, O' '<B %E' ?' ?#A>. 1.' C.<'+' >O<$%>D' @ B!' @1J>,>.!' +1' '1 %' >,>.E' <++>BA+' 1'' @ ?' >O>B >?' O' >''>C+ O=' X+@ ?!' OD>>D!' @>' ?@.#OH' '.1B' O1' D>>D' 1''+.><C@>.E' 1.' , 1%>OC>' @1J>,>.' <+.1P C 1#?!' <OD' O' +@>' >OD' @<D' +@>' ?<+ ?'<C+ 1O' 1'' >?+<P $% ?@ O=' @ ?' <#+@1. +E!' #OD ?A#+>D!' 1O' +@>' '><.?' 1''@ ?' ?#$">C+?' >' J<?' <$1#+' ?>,>O+E' E><.?' 1''<=>' <+' +@>' A>. 1D' 1'' J@ C@' J>' <.>' +.><+ O=!' 6: ' @>' @> .M' <AA<.>O+!' %A@1O?1!' J<?' >F#<%%E' ?<O=# O<.E' O' @ ?' +>BA>.!' +@1#=@' A1??>?? O=' %>??' +<%>O+' '1.' D ?? B#P %<+ 1O' +@<O' @ ?' '<+@>.

#C@' J<?' +@>' C@<.<C+>.' 1'' +@>' A. OC A<%' +<% <O' C1 B+?' <+' +@>' C%1?>' 1'' +@>' ' '+>>O+@' C>O+#.E' @>' A1% + C?' 1''+@>' C1#O+.E' J>.>' O>C>??<. %E' .>=#%<+>D' $E' +@>' +>BA>.' <OD' , >J?' 1''+@>' %><D O=' A1J>.?' @>E' J>.>' >??>O+ <%%E' ?>%' ?@' <OD' A>.?1O<%' @>' <OC >O+' .>A#$% C<O' '1.B?' @<D' $>>O' =.<D#<%%E' >''<C>D' D#. O=' +@ ?' C>O+#.E!' <OD' B1.>' <.$ +.<.E' 1O>?' O+.1D#C>D' @>' O<B>' 1'' '.>>D1B!' OD>>D!' J<?' ?+ %%' O?C. $>D' 1O' +@> .' $<OO>.?!' $#+' +@>' ?A . +' @<D' D ?<AA><.>D' O' <%B1?+' >,>.E' ?+<+>!' =.><+' 1.' ?B<%%!' ?1B>' B % +<.E' <D,>O+#.>.!' 1.' C.<'+E' ?+<+>?B<O!' @<D' ?#CC>>D>D' O' .< ? O=' @ ?' 1JO' <#+@1. +E' 1O' +% >' % $>.+ >?' 1'' @ ?

C1#0+.EL <0D @ ? ?1%> < B ?>>B>D +1 $> +1 >0%<.=> + ?+ %% '#.+@>.! <0D +1 ?>C#.> + <=< 0?+ +@> C10?A .<C >? <0D .>,1%#+ 10? J@ C@ +@> .>B 0 ?C>0C> 1 <0C >0+ 0D>A>0D>0C> 0<+#.<%%E!C<%%>D '1.+@ T #C@ J<? +@> C<?> J +@ #?C<0E! %<0! <A%>?! <0D+@> 0#B>.1#? ?#$1.D 0<+> ?+<+>? 0 1B>! +@> A10+ ' A.1A1?>D 01 @ =@>. 1$">C+ +@<0 +@> C10C>0+.<+ 10 1 J><%+@ <0D A#$% C @101#.? 0 +@> @<0D? 1 @ ? 1J0 '<B %E 0 ?@1.+! +@> <DB 0 ?+.<+ 10 1 >,>.E ?+<+>? ?>>B>D +1 $> B<0<=>D J +@ >KC%#? ,> .>'>.>0C> +1 +@> A>.?10<% 0+>.>?+?1 +? C@ >' >0 C> J<? +@> 10%E A1J>. 1 ?#'' C >0+ ?+.>0=+@ <0D ?+<$U +E +1 >0=<=> 0 B1.> >K+>0D>D ?C@>B>? 1 A1% CE! <0D >,>0 +@>?> J>.> C10D#C+>D! <? @<? $>>0 <%.><DE 01+ C>D! 0 +@> 0<..1J <0D C<%C#%<+ 0=> ?A . + 1 <+.<D 0=> C1.P A1.<+ 10

#+ J@ %> 01 ?A<.H 1 =>0>.1#? A<+. 1+ ?B ?>>B>D +1 J<.B +@> $1?1B? 1 +@> +<% <0?!O J@ %> 01 ?>0?> 1 A#$% C =11D! 1. >,>0 B>0<C> 1 '1.> =0 0,<? 10! C1#%D $. 0=+@>B +1 <C+ 0 C10C>.+ J +@ 10><01+@>.!T +@> 0+>.0<% C10D + 10 1 +@> C1#0+.E J<? >B 0>0+%E A.1?A>.1#? +<%E @<D '<. 1#+?+. AA>D +@> .>?+ 1 #.1A> 0 +@> ,<. 1#? <.+? 1 C , % ?>D&% '>L <0D ?@> >,>.EJ@>.> <''1.D>D +@> >, D>0C> 1 '<C#%+ >? D>,>P %1A>D $E #0C><? 0=0+>%%>C+#<% <C+ 10 @> '<C> 1 +@> C1#0+.E +?>% J<? % H> < =<.D>0 L Q C#%+ ,<+>D

Q 1% @%4 F%13 0 %)5 : @ 13, A%5) 3 B A, (($ 5 ,) A 1,55 0 , A . ,(0 0%(,) A 0,0) A ( ) $ C BA) A Q ( )( ) % A %) ,) 0 ,),15% ,) 0 A $ @ BA,(A A % ,%) % .) 0 % 1 5 %5C 4$ $3) A 1 1 1) ! %0 . BA 1,) A %4,(

+@.1#=@ <%% +? A%< 0? +1 +@> ,>.E +1A? 1 '+@> B1#0P +< 0? L +>>B 0= J +@ A1A#%<+ 10! J +@ . C@>?! <0D <0 #0% B +>D C1B B>.C>L %%#?+.<+>D $E B<0E B#0 ' C>0+ A. 0C>?! $E +@> A%>0D1#. 1' B<0E 01$%> <0D $><#P + '#% C + >?! <0D $E +@> B<">?+E 1' .>% = 10L <0D <D1.0>D J +@ <%% +@1?> .<.> <0D A.>C 1#? = '+? J@ C@ .>0D>. <0<B> =%1. 1#? <B10= +@> 0<+ 10? RT #C@ <.> +@> =%1J 0= ?+.<0? 0 J@ C@ +@> #?C<0 @ ?M +1 <0 C>%>$.<+>? +@> A.1?A>. +E 1' @ ? C1#0+.E! >.> E>+ +@> ?+1.B 1' J<. @<D D>?C>0D>D 10 @>. $><#+ '#% ,<%%>E?

@ ? ?C>@> 1'D1B>?+ C +.<0F# %% +E J<? D>?+ 0>D +1 $> C@<0=>D $E +@<+ +>.. $%> 0,<? 10 J@ C@ +@> <0, $ + 10 1' 1D1, C1 '1.G< $.1#=@+ #A10 @ ? C1#0+.E > @<D <%.><DE 1.=<0 G>D <C1<% + 10 1'+@> 01.+@>.0 A1J>.? 1' +<%E! +1 D>'><+ +@> 0+>.'>.>0C> 1'+@> S 0= 1' <A%>? 0 $>@<%'1'@ ? =.<0D?10! +@>. =@+'#% #H> 1' %<0! J@1B @ ? #0C%> @>%D 0 ?#$">C+ 10 D#. 0= <A.1+.<C+>D B 01. +E! J@ %> @> >K>.C ?>D <%% +@> .><% '#0C+ 10? 1' ?1,>.> =0+E 0 @ ? 0<B> 1+ '>>% 0= ?#'' C >0+%E ?>C#.> '.1B @ ? +<% <0 C10'>D>P .<CE! '1.G<U 0, +>D +@> S 0= 1' .<0C> +1 .>, ,> +@> @>.>D +<.E C%< B? 1' +@> @1#?> 1' 0"1# +1 +@> C.1J0 1' <A%>?! A.1B ? 0= +1 < D @ B 0 +@> >0+>.P A. ?> J +@ <%% @ ? .>?1#.C>?' 0 +@ ? J<E! +@ ? J %E A1% + C <0 A.1A1?>D +1 D ,>.+ +@> ?+1.B '.1B @ ? 1J0 @><D! $E = , 0= >.D 0<0D ?#'' C >0+ 1CC#A<+ 10 <+ @1B>

@> +@.10> 1' .<0C> J<? <+ +@<+ + B> ' %%>D $E

N CC<.D#! ?+1.'D%+<% <! +1B' !%$ 'A'7L >D 68

@<.%>?' !' <' B10<.C@' ?C<.C>%E' +J>0+EM+J1' E><.?' 1'' ' ?' '<+@>.!' 1# ?' ; !' @<D' = ,>0' @ B' <0' >D#C<+ 10' 01+' 10%E' #0$>C1B 0=' <' =.><+' A. 0C>!' $#+' >,>0' <' A. ,<+>' =>0+%>B<0 ' >' J1#%D' <%%1J' @ B' +1' %><.0' 01' 1+@>.' <+ 0!' ?<E?' .<0+DB>!' +@<0' @ ?' '<P ,1#. +>' B<K B!' X I #' 0>?C +' D ?? B#%<.>!' 0>?C +' .>=M' 0<.> T' @<.%>?' B<D>' ?1B>' <B>0D?' '1.' +@ ?!' +@1#=@' J +@' % ++%>' "#D=B>0+!' 0' %<+>.' % '>!' J@>0' %>'+' +1' @ ?' 1J0' D ?A1?<%' ?' '<,1#. +>' ?+#D >?' J>.>' +@>' >KP A%1 +?' 1''C>%>$.<+>D' C10F#>.1.?!' 1'' <>?<.' <0D' @<.P %>B<=0>' A<.+ C#%<.%E!' J@ C@' ' %%>D' @ ?' E1#0=' B 0D' J +@' ,<=#>' <0D' , ? 10<.E' D><?' 1'' =%1.E' @>?>' D.><B?' J>.>' ?+ ' '#.+@>.' 01#. ?@>D' $E' +@>' +1#.0>E?' <0D' 1+@>.' C@ ,<%.1#?' ?A>C+<C%>?' 1''+@>' <=>!' 0' J@ C@' @>' D>% =@+>D!' #0+ %' @>' ?>>B?' +1' @<,>' B<= 0>D' @ BP ?>%'' ?1B>' D1#=@+E' A<%<D 0' 1'' .1B<0C>!' D>?+ 0>D' +1' +@>' <C@ >,>B>0+' 1'' <' =.<0D' <0D' A>. %1#?' >BA. G>' +' <''1.D?' ?1B>' A.11'' 1'' +@ ?' >K<%+>D' ?+<+>' 1'' @ ?' B<= 0<+ 10!' +@<+' @>' =<,>' @ ?' 10%E' ?10' +@>' 0<B>' 1'' .%<0D1!' <'+>.' +@>' C>%>$.<+>D' @>.1' 1'' 10M' C>?,< >? '

51??>??>D' 1'' <' B 0D' +@#?' >KC +>D' $E' C@ B>. C<% , ? 10?' 1'' B % +<.E' =%1.E!' @>' %>0+' <' J %% 0=' ><.' +1' +@>' <.+'#% A.1A1? + 10?' 1'' '1.G<' 0' +@>' >K+.<,<P =<0C>' 1'' ,<0 +E!' '>D' $E' +@>' <D#%<+ 10' 1'' 0+>.>?+>D' A<.<? +>?!' @>' <''>C+>D' +1' .>=<.D' +@>' >0+>.A. ?>' <=< 0?+' <A%>?' <?' 10%E' 1A>0 0=' +@>' J<E' +1' <' C<.>>.' 1''B1.>

L' %) 1 ' E, '5 ' 8)>' 0%, ' 1!' F.!' 3! ! J :%, % 5' 1 ' $ ' 1!' ,,!' , (!' ,!' ,.% , '5 ' %)(' '5K 3%') ' 33!' ! !' 1!',.!' 33!' ' ! ' , 1)5,' 8, ' 5 ' %)>

?A%>0D D' C10F#>?+?!' J@ C@' J>.>' +1' +>. B 0<+>' 0' +@>' C<A+#.>' 1'' 10?+<0+ 01A%>!' <0D' +@>' .>C1,>.E' 1'' +@>' 1%E' >A#%C@.>' >' >,>0' J>0+' ?1' '<.' <?' +1' A# M' C@<?>' 1'' 0D.>J' 5<%>1%1=#?!' +@>' 0>A@>J' <0D' @> .' 1'' 10?+<0+ 0>!' +@>' %<?+' 1'' +@>' B?<.?!' @ ?' + +%>' +1' +@>' .>>H' >BA .> T

1+@ 0=' C1#%D' $>' B1.>' #0?1#0D!' <CC1.D 0=' +1' +@>' A. 0C A%>?' 1'' +@>' A.>?>0+' D<E!' +@<0' @<.%>?' ?' C%< B?' +1' +@>' C.1J0' 1'' <A%>?' +@1#+' D ?C#?? 0=' +@>' 1. = 0<%' A.>+>0? 10?' 1'' +@>' . ,<%' @1#?>?' 1'' .<=10' <0D' 0"1#!' +' ?' ?#'' C >0+' +1' ?+<+>' +@<+!' <+' +@>' + B>' 1'' @<.%>?' ?' 0,<? 10!' +@>' ><A1% +<0' +@.10>' @<D' $>>0' 0' +@>' A1??>?? 10' 1'' +@>' .<=10>?>' '<B %E' B1.>' +@<0' @<%'' <' C>0+#.E!' #0D>.' +@.>>' ?#CC>?? ,>' A. 0C>?' ?1%>B0%E'.>C1=0 ?>D' $E' +@>' A>1A%>!' ?<0C+ 10>D' $E' .>A><+>D' 0,>?+ +#.>?' 1'' +@>' A<A<%' ?#G>.< 0!' <0D' <DB ++>D' $E' < ' +@>' ?+<+>?' 1'' #.1A>' '' <%%' +@ ?' D D' 01+' = ,>' ,<% D +E' +1 +@> .' + +%>!' J@>0' J<?' +@>' 0<+ 10' +1' >KA>C+' .>A1?>Ł @<.%>?' ?' C%< B!' 10' +@>' 1+@>.' @<0D!' J<?' D>. ,>D' 1. = 0<%%E' '.1B' <' +>?+<B>0+<.E' $>F#>?+' 1'' >0 !' 1#0+' 1'' 5.1,>0C>!' 1A>.<+ 0=' +1' +@>' >KC%#? 10' 1'' +@>' ?10' 1'' @ ?' 1J0' D<#=@+>.!' +@>' . =@+'#%' @> .' 1'' +@>' @1#?>' 1'' 0"1#Ł <A%>?' $> 0=' +11' 01+1. 1#?%E' <' '>B<%>' ' >'' +1' <''1.D' <0E' A.>+>K+' '1.' +@>' <C+ 10' 1'' +@>' <% C' %<J' @>' A.>+>0? 10?' 1'

%1' 8, ' 5' E), ' %' 1' A 'BA,(A' %33 % 5' 1!' ,,,' ,.!' FF<' ( )5' 5,!')' A' . ' 0'*A% K' F3 5,; ' A' 5 5' 0' (,)' ,)' A' ,)' 4 %A' %')' 0'2$,F ,(1 1 ,' 0')!' 5')(>' %)5' ,', $') A$,% 1' A%' 1%') !' P 1!' 5' K (%5!' 5' %) 3 ' $' 4%(@' ' A' 5%C') (,3,) ' 1!'F.,,!33!6 H J' 0' A' (1 %5 ! 6/H!X' A,' 5 ($1)' %' B

>.D 0<0D 1'' A< 0! <? .>A.>?>0+<+ ,> 1'' +@> %>= P + B<+> $.<0C@ 1'' .<=10! J>.> '<.' B1.> A%<#P ? $%> T

0D>A>0D>0+%E 1''+@> D>'>C+?' 0 @<.%>? ? + +%>! @ ? A1? + 10 J<? ?#C@ <? +1 B<H>&+@> A.1">C+>D >KA>D P + 10 >,>.E J<E BA1% + C B ?#0D>.?+<0D 0=' @<D '1.' ?1B>' + B>' ?#$? ?+>D $>+J>>0 @ B' <0D +@> A<P 0 ?@ ?1,>.> =0?! <0D @>' J<? <+' 1A>0 J<.' J +@ >.P B<0E <0D 0=%<0DL ?1 +@<+' +' J<? 10%E $E %<.=> C10C>?? 10? +@<+' @>' C1#%D @1A>' +1 ?>C#.>' +@> .' <CF# P >?C>0C>' 0 <0 >0+>.A. ?>' B1?+' A.>C<. 1#? 0 +? C@<P .<C+>.! <0D J@>.>' >,>0 C1BA%>+>' ?#CC>??' C1#%D $>' 1'' 01' A>.B<0>0+' $>0>' +' +1 @ ? H 0=D1B ' Q >' D D 01+' #0D>.?+<0D!R ?<E? 1%+< .>! Q +@<+' <' D1G>0 , %P %<=>? <D"<C>0+' +1 10> ? +>.. +1.E! <.>' 1'' B1.>' ,<%#>' +@<0 <' H 0=D1B ' '1#.' @#0D.>D %><=#>? D ?+<0+ R' ' E' +@>' +.><+ >? 1'' +<A%>? <0D >0% ?! @>' A#.C@<?>D <' .>C10C % <+ 10 J +@ >0.E %d ' 1'' 0=%<0D! <0D J +@ <K B % <0! +@>' >BA>.1.' >%>C+L <0D' 0<%%E! $E

A ( )0,(,)'' (%,1 0 (.,,! 8,' 3 ,,(' 0% A $,)+ $%)5 %')'% % 5'%' =' %(5)' A,' 3 ,)(,3 0 ')' A' 4C :%, % 5' B, A' 1 ' A' 1%5)' % 13' '1%,) %,)' (%)5 $' %)5' ,13% ,%, C' A%)' A, 3) ,) ' ' %3 <' % ; B%' 'A' F3 (50 1'%')(A' A $'A' %4 C%00 (' ' 5 $4' B , ! P8, ' 5' %)0 , ' ' BA A ' A, 'B ') ' A ' $+ 1! ,! 33! / J H !X A C'0 1' 0') (, C' % A ' A%)' 3 ,(C! A' $4+ (' 0'%'+$.), ' %C' Y' ' ' 5 $ $F ,' (' 1 5 ; 0' :,44)' ,)' BA,(A' B ' 1%C' %,)' 0$' K $. %' '5K$) ' ( )' 5, ( )' A ' ' 1 ' 0' 1%)C' 0') , %)('%33 0)5,'5' ' . %,' ' A ' 3 ($,%, , ' BA,(A' %0 ; ,)) ' $' $ 1)' 5' (' B% 5' (A% %(,G 5' A ' A, ; 5 0,%)(' 2$K,' %. ,' 5 ' ' %)5' ,%)' 0' A ' (,)' %)5' % ! 5 ')' C%$1 ' ' 2$K,')K ,' , (%) $' 9 @ ' . ! ,,,! 3 5 ' 5 ' .$!Z 4 .%,)' 33! J 4 ( )5' 5, ' ' 8+ , '5' %)(' ,.! .,! ' %,' $' ' $ ' (A! (A! ,.

' *8 ' E !' ' * !

+@<+' 1'' <.C>%10<!' >''>C+>D' <0' <B C<$%>' <D"#?+B>0+' 1''@ ?' D '' C#%+ >?' J +@' A< 0 T

@ ?' +.><+E!' J@ C@' 0,1%,>D' +@>' .>?+1.<+ 10' 1'' 1#?? %%10' <0D' >.D<=0>!' J<?' 1'' =.><+' BA1.+<0C>' +1' +@>' C.1J0' 1'' .<=10' @>?>' A.1, 0C>?!' +' J %%' $>' .>B>B$>.>D!' @<D' $>>0' 1. = 0<%%E' B1.+=<=>D' $E' >.D 0<0D ?' '<+@>.' S 0=' /1@0' !' +1' 1# ?' ; ' 1'' .<0C>!' '1.' +@>' ?#B' 1'' ! ' C.1J0?!' 0' C10? D>.P <+ 10' 1'' < D' +1' $>' <''1.D>D' $E' +@>' %<++>.' B10<.C@' <=< 0?+' +@>' <+<%<0' 0?#.=>0+?' %+@1#=@' +@>' ?+ P A#%<+>D' ?#B' @<D' 0>,>.' $>>0' A< D' $E' .<=10!' E>+' <' A%<#? $%>' A.>+>K+' '1.' .>F# . 0=' +@>' .>?+ +#+ 10' J<?' <''1.D>D' $E' 1# ?&; ?' 0C1BA%>+>' A>.'1.B<0C>' 1'' @ ?' >0=<=>B>0+?!' <?' J>%%' <?' $E' +@>' <BA%>' .> B$#.?>U' B>0+' J@ C@' +@>' .>0C@' =1,>.0B>0+' @<D' <%.><DE' D>. ,>D' '.1B' +@>' .>,>0#>?' 1'' +@>?>' C1#0+. >?!'' @ ?' +.><+E' @<D'%10=' $>>0' <' A. 0C A<%' 1$">C+' 1'' >.P D 0<0D ?' A1% CE' >' @<D' 01+!' 0D>>D!' C10' 0>D' @ BP ?>%''+1' 0>=1+ <+ 10!' $#+' @<D' B<D>' <C+ ,>' D>B10?+.<P + 10?' B1.>' +@<0' 10C>' 1''1CC#AE 0=' +@>' C10+>?+>D' +>.P . +1.E' $E' '1.C>' >=1+ <+ 10!' @1J>,>.!' J<?' B1.>

Q' % %)' ,3 1%,2$' %)>' O<%,' 1!',' 33!' 6D J 6H! J' $1)' * 3' ,3 1%,2$' 1!',,,!' 33!' 0 J !

' ' A')% %,.' 0' A' %) %(,)' ,)' A' 0,0 A' %)5' ,F A' (A%3 ' 0' A,' 8, C!' ' A, ,%)' 1' '%@',' 0 ' ' %) 5' A%' $,' = !' %5>' !.%)(5'%' $1' 0' 1)' C' A' ",)'' 0' %')'%)5' 1' % ' A%' 3%C1)' 0' A' 5 4' 0' BA,(A' A' 3 .,)('B '1 ;

=<=>D' J<? ?#$?>F#>0+%E' +>0D>.P >D' +1' +@>' .>0C@' H0=' - >>!' <B10=1+@>.?!' ?B10D!' >A#$' +<%' +1B' K' A' : 'O' 1?C1>!' >1' ;' ,1%' ' A' 69 * @>' '.?+ 1'' +@>?>' ?+<+>B>0+? ?' < A<%A<$%>' >O%1.L' <0D' ' '0D' 01' >, D>0C>' 1''+@>'%<?+' 0'<0E' 3%);' ?@' <#+@1.+E!' J@>.>!' ''+.#>!' +' C>.+< O%E' J1#%D' @<,>' $>>0' 01P + C>D' ' B#?+!' 0D>>D!' >KC>A+' >B<%D>G!' J@1' ?<E?' +@<+' >.P D 0<0D' @<, 0=.>A<D' +@>' B10>E

C10?10<0+ +1 @ ? @<$ +#<% A1% CE L <0D <'+>. +@> +>.P
B 0<+ 10 1 '+@> 11. ?@ J<.! @> A.>??>D + J +@ +@>
#+B1?+ , =1#.! .>A< . 0= J +@ +@> F#>>0 +1 <.C>P
%10<! 0 1.D>. +1 J<+C@ 1 ,>. +@> D>% $>.<+ 10? 1 '+@>
>0 ,1E? 1 '+@> +J 1 0<+ 10? <+ =#>.<? T

@> .>0C@ @ ?+1. <0? <CC#?> >.D 0<0D 1 '$. P
$ 0= +J 1 >CC%>? <?+ C?! @ =@ 0 0'%#>0C> <+ +@> .
C1#.+! +1 B<H> ?#C@ < .>A.>?>0+<+ 10 1 '+@> <''< . <?
?@1#%D <%<. B +@> C10?C >0C> 1 '+@> E1#0= B10<.C@
@>?> @1%E B>0 0? ?+>D 10 +@> .>?+1.<+ 10 1 'S1#?M
? %%10 <? <0 <C+ 1 '"#?+ C> ? 0C> +@> ?#.<? '1. J@ C@
+ @<D $>>0 B1.+=<=>D! +@1#=@ 01+ .>A< D! @<D $>>0
?A>0+ 0 +@> C1B B10 C<#?> 1 ' @. ?+>0D1B! +@>
11. ?@ J<. @> ?1#%! +@>E ?< D! C1#%D 0>,>. @1A>
+1 >?C<A> '.1B A#.=<+1.E! #0+ % .>?+ +#+ 10 J<? B<D>
1 '<%% A.1A>.+E #0%<J '#%%E @>%D D#. 0= % '> ? .1E<%
'<+@>.! 1# ? ; ! J<? C%><.%E 0 +@ ? A.>D C<B>0+! <?
@> @ B?>%' J1#%D @>.><'+>. $>! #0%>?? +@> A<0 ?@
+>.. +1. >? ?@1#%D $> .>% 0F# ?@>D L < B><?#.>! B1.>P
1,>.! +@> B1.> 1$% =<+1.E 10 @ B! ? 0C> + J<? J>%%
H01J0 +1 $> +@> DE 0= .>F#>?+ 1 '@ ? A<.>0+ @>?>
<.=#B>0+? B<D> < ?# +<$%> BA.>?? 10 10 +@> E1#0=

$1..1J>D $E @ ? '<+@>. '.1B , A,1 (5, ,) A
1#? ; +1 @<.%>? ! +@> % !)5 5 A B AC ($;
%<++>. B10<.C@ .>#.0>D + +1 % % A $'A 1$(A 4 , 5
?<$>%%<! 0 C10? D>.<+ 10 1 '+@>) 0 BA% 3% 5 ,) A, B)
=.>< >KA>0?>? 0C#..>D $E +@> 3 .,)(1%C 4 0 ,15 0 ;
11. ?@ J<. + ? < A +E +@<+ 2$) C ,33,) ' ,) A 5 %,
+@ ? .1B<0+ C A >C 1 =<%%<0+.E 0 BA% 3% 5 $ 0 , ! >
D1>? 01 .>?+ 10 <0E $>++>.)% 5 G! 8, 5 " C * %
'1#0D<+ 10 +@<0 +@> C#.<+> 1 ,(! (%3! (F.,,!
%1? 5<%<C 1?! J@1 ?@1J? < D>P L N$, % 8, 5 8)%)5
=.>> 1 =01.<0C> 0 +@> ' .?+ * % ! ,4! ,! (%3! ,.! .,,! F <
A<.+ 1 @ ? ?+<+>B>0+ +@<+ >0P 5! 6I !

B10<.C@!' <0D' ?+ %%' B1.>' 10' @ ?' ? ?+>.!' +@>' #C@>??'
1'' ><#">#!' J@1' >K>.C ?>D' =.><+' 0'%#>0C>' 1,>.' @ B!'
<0D' J@1' $>% >,>D' @>.' 1J0' ?1#%' 0' A>. %' 1'' >+>.0<%'
D<B0<+ 10' $E' D>'>.. 0=' +@>' <C+' 1'' .>?+1.<+ 10' <0E'
%10=>.' @>' >''>C+' 1'' +@ ?' C1=>0+' .><?10 0=' J<?' 01'
D1#$+' =.><+%E' >0@<0C>D' $E' +@>' .>CH%>??' BA<+ >0C>'
1'' @<.%>?!' J@1' C<%C#%<+>D' 01' C1?+' 0' +@>' A.1?>C#+ 10'
1'' @ ?' C@ B>. C<%' >0+>.A. ?>' +@' +@>?>' <B C<$%>'
D ?A1? + 10?' <0' <..<0=>B>0+' J<?' <+' %>0=+@' C10C%#D>D!'
<0D' .>C> ,>D' +@>' ? =0<+#.>?' 1'' +@>' .>?A>C+ ,>' B10M'
<.C@?' 10' +@>' ?<B>' D<E!' $> 0=' ? =0>D' $E' @<.%>?' <+'
1B& !' <0D' $E' > D 0<0D' <0D' ?<$>%%<' <+' <.C>%10<!'
/<0#<.E' :+@!' 6: T

@>' A. 0C A<%' <.+ C%>?' 1'' +@>' +.><+E' A.1, D>D' +@<+'
+@>' C10+.<C+ 0=' A<.+ >?' ?@1#%D' B#+#<%%E' < D' ><C@'
1+@>.' <=< 0?+' <%%' >0>B >?L' +@<+' +@>E' ?@1#%D' .>C A.1P
C<%%E' A.>'>.' +@ ?' <%% <0C>' +1' +@<+' J +@' <0E' 1+@>.!' " '
' ('* " ' , !' +@<+' +@>' A<0 ?@' ?1,>.> =0?'
?@1#%D' >0+>.' 0+1' 01' #0D>.?+<0D 0=' J +@' <0E' A1J>.!'
" ' ' ('* " ' , ' A.>"#D C <%' +1' +@>' 0P
+>.>?+?' 1'' .<0C>' L' +@<+' +@> .' C@ %D.>0' ?@1#%D' 01+' $>'
D ?A1?>D' 1'' 0' B<.. <=>' +1' +@>' S 0=?' 1'' 0=%<0D!' 1.

Q' $ C' 8, !' ((,% !' 0 1' 1 ,. ' 0' ( ) 1C' 'AC;
( ),)!' 1!' FF,.!' 33!' 6 'J' 3 (, C'% B%C' 13 C 53, '
666! J N$, %' 8)%)5 ' '*%>' ,)' A , ') ' ,%,) !' Y' *%'
,(' ,4!',!'(!!F,.! J % $'8, ' $ ' $ ' $. ') ' 0%,'
5 'E), ' 1!',,,!33!'6 '6 ! J' 1) ' '( )5$, '3% ' '') '
:%, % 5' ,.% , ' 5' %)(' ' P ,', $FX' $' 3%' AC3 (, ,'
5K 3%') ' 1!' ,.!' 3!' ! J' $' %0,)' 5' 1 ,) ' 5 3)5 !['
4% (%')% % 5 ' ' C '5' P 1 , 3! !X' A)(A'
%')' 1',,!' C'FFF!'(%3!'.,! @,)' 'A B . ' 1%5' 1 ' $ '
* 1,) ' % $5,)'' ' A' %0; 0' A' ('C',)' A, ' . C' %) ;
0%, ' 0' $,)' %C ' A% ' %(,)' A%)' A ' 3%), A! J N$, %'
5,)%)5'%)5' %4 %' BA A ,4!',!'(! =!

1'+@> 1B<0?! 1.+1 <0E>0>B E1' .<0C>! J +@1#+ +@> .>0C@ H 0= ? C10?>0+ + J<? ' 0<%E ?+ A#%<+>D +@<+ 1#?? %10 <0D >.D<=0> ?@1#%D $> .>?+1.>D +1 .<=10L $#+ +@<+! <? D1#$+? B =@+ $> >0+>.+< 0>D +1 J@ C@ A1J>.+@> A1??>?? 10 1'+@>?> C1#0+. >? . =@+P '#%%E <AA>.+< 0>D! <.$ +.<+1.?! / -

2 ?@1#%D $> <AA1 0+>D! '.>F#>?+>D!$E +@> .>0C@ B10<.C@! J +@ '#%% A1J>.+1 D>C D> +@> F#>?+ 10! $E J@1?>'"#D=B>0+ +@> C10+.<C+ 0=A<.+ >? B#+#<%%E A.1B ?>D +1 <$ D> @ ? %<?+ A.1, ? 10! 1$, 1#?%E +11 J>%% =#<.D>D +1 ">1A<.D +@> 0+>.>?+? 1'+@> A<0 ?@ ?1,>.> =0?! J<? 0+.1D#C>D +1 <%%<E! 0 ?1B> B><?#.>! +@> D ?C10+>0+? 1'+@> .>0C@! J@1 %1#D%E 0,> =@>D <=< 0?+ +@> .C<$ 0>+ <? ?<C. ' C 0= +@> 0+>.>?+? 1'+@> 0<+ 10!O <CC#? 0=! 0D>>D! +@> <.D 0<% D %$! +@> A. 0C A<% <=>0+ 0 +@> 0>=1+ <P + 10! 1'$> 0= 0 +@>A<E 1' >.D 0<0D T

@> +.><+E >KC +>D >F#<% ?#.A. ?> <0D ?<+ ?'<C+ 10 0 A< 0! J@>.> 1#?? %10 J<? .>=<.D>D <? 1' +@> %<?+ BA1.+<0C>! 01+ B>.>%E '.1B +@> >K+>0+ 1' +? .>?1#.C>?! $#+ '.1B +? %1C<% A1? + 10! J@ C@ B<D> + +@> H>E 1' <+<%10 < @> 0<+ 10!,?<E? V#. +<!

L %$,? .,,8, $, 1> 3 , ,4!,! 3! < 5! % ,! 6/I! A % C 0 % ( )% , T.) %) ' A 4C $1) ! P* 3 ,3 1%,2$ 1! ,,,! 33! H/J !X , , 3 5 B, A $00,(,) ,)%(($ %(C 4C 1%)C A, ,%) BA 1%@) ' A% 5,;)%)5 F3 C 4 $)5A,1 0 4C) 0 A %,> ,( ) ,) 0 B, A*A% K 1 5,% 5% 13

10 <A%>? - <%%<.D! ,<% + ! +1B! ,! A O 1%+< .>! ??<! C@ C, O 1B 0>?! % $, C@ KK O5<#% /1, ? +! % $ A O <. %%<?! 51% + F#> D >.D AA ! 7 O 1?C1>! >1 ; +1B ' C * 1 '<K '.1B +@ ?! +@>.> ? 01 <%%#? 10 J@<+P >,>.+1 +@> A.1A1?>D >KA>D + 10 0 +@> +.><+E! 01.? ?U+@> 0<B> 1" <A%>? 10C> B>0+ 10>D 0 +

‘ *8 ‘ E !‘ ‘ * !

%11H>D‘ 10‘ +?‘ .>C1,>.E‘ <?‘ ?C<.C>%E‘ %>??‘ BA1.+<0+‘ +@<0‘ +@>‘ C10F#>?+‘ 1’‘ .<0<D<!‘ <0D‘ +@>E‘ D1#$+>D‘ ?1B>‘ ? 0 ?+>.‘ B1+ ,>!‘ 1.‘ D>>A>.‘ A1% CE‘ +@<0‘ <AA><.P >D‘ 0‘ +@>‘ C10D#C+‘ 1’‘ +@>‘ .>0C@‘ H 0=‘ @>‘ J<?‘ 0P ‘%#>0C>D!‘ @1J>,>.!‘ $E‘ 01‘ D>>A>.‘ A1% CE‘ +@<0‘ +@>‘ C.<, 0=?‘ 1’‘A#>. %>‘ <B$ + 10 T

@>‘ A.>A<.<+ 10?‘ 1’‘ @<.%>?!‘ 0‘ +@>‘ B><0‘ J@ %>!‘ >KC +>D‘ =>0>.<%‘ <%<.B‘ +@.1#=@1#+‘ +<%E‘ ‘ >.D 0<0D!‘ +@>‘ 1%D‘ S 0=‘ 1’‘ <A%>?!‘ J@1‘ 0‘ ,< 0‘ >0D><,1#.>D‘ +1‘ <..>?+‘ +@>B‘ $E‘ 0>=1+ <+ 10!‘ @<D‘ D >D‘ 0‘ +@>‘ $>= 00 0=‘ 1’‘ 6:6‘ ‘ >‘ J<?‘ ?#CC>>D>D‘ $E‘ @ ?‘ ?10‘ %A@10?1a‘ <‘ A. 0C>‘ 1’‘ $1%D>.‘ $#+‘ %>??‘ A1% + C‘ C@<.<C+>.!‘ <0D‘ >F#<%%E‘ 1D 1#?!‘ ‘.1B‘ +@>‘ C.#>%+E‘ 1’‘ @ ?‘ D ?A1? + 10!‘ J +@‘ @ ?‘ ‘<+@>.‘ ‘ >‘ %1?+‘ 01‘ + B>‘ 0‘ A#++ 0=‘ @ ?‘ H 0=D1B‘ 0‘ <‘A1?+#.>‘ 1’‘D>‘>0C>L‘ $#+‘ @>‘ J<0+>D‘ +@>‘ $>?+‘ 1’‘ <%%‘ D>‘>0C>?!‘ +@>‘ <++<C@B>0+‘ 1’‘ @ ?‘ ?#$">C+?‘ ‘ ?‘ 0+>.>?+?‘ J>.>‘ ?#AA1.+>D‘ $E‘ +@>‘ %1.>0+ 0>‘ .>P A#$% C‘ <0D‘ +@>‘ A1A>!‘ J@1?>‘ ‘<B %E‘ @<D‘ 0+>.B<.. >D‘ J +@‘ +@>‘ .1E<%‘ @1#?>‘ 1’‘ <A%>?‘ ‘ >0 C>‘ ?+11D‘ <%11‘!‘ ?>C#.>‘ 0‘ @>.‘ .>B1+>0>??!‘ #0J %% 0=‘ +1‘ C1BA.1B ?>‘ @>.‘ 0+>.>?+?‘ $E‘ +11‘ A.>C A +<+>‘ <‘ D>C%<.<+ 10‘ 0‘ ‘<P ,1#.‘ 1’‘> +@>.‘ A<.+E

@>‘ #.1A><0‘ A1J>.?‘ .>=<.D>D‘ +@>‘ >KA>D + 10‘ 1’‘ @<.%>?‘ ‘ J +@‘ ?1B>J@<+‘ D ‘’>.>0+‘ ‘>>% 0=?L‘ B1?+‘ 1’‘ +@>B‘ J>.>‘ 01+‘ #0J %% 0=‘ +1‘ ?>>T?1‘ ‘1.B D<$%>‘ <‘ A. 0C>‘ J<?+>‘ @ ?‘ .>?1#.C>?‘ 0‘ <‘ .>B1+>‘ <0D‘ C@ B>. C<%‘ >0+>.A. ?>‘L‘ >.D 0<0D!‘ @1J>,>.!‘ C10+>BA%<+>D‘ J +@‘ B1.>‘ <0K >+E‘ <0‘ >,>0+‘ J@ C@‘ B =@+‘ +>.B./ +>‘ 0

L‘ 8, ‘ 5 ‘ 8)%)5 ‘ ‘ *% ,(‘ ,4!‘ ,!‘ (!‘ F.,,,! J 4% (%‘ C ‘ 5 ‘ %’) ‘ $4,‘ $3 %!

E

+@>' ?#$,>.? 10' 1''+@>' ><A1% +<0' $.<0C@' 1''@ ?'@1#?>!'
<0D'$. 0='<'A1J>.'#%'<0D'<C+ ,>'0> =@$1#.' 0'C10+<C+'
J +@'@?'1J0'D1B 0 10?'1'' C %E' >'%1?+'01'+ B>'
0''1.+ 'E 0='+@>''<%+>. 0='C1#.<=>'1''+@>'A1A>'$E'
<??#.<0C>?'1''?#AA1.+' ?'<B$<??<D1.'+@>0'.>? D>0+'
<+'+@>'A<A<%'C1#.+'J<?' <.C %<??1'D>'%<' >=<!''<+@>.'
1''+@>' %%#?+. 1#?'A1>+'1''+@<+'0<B>!'<0D''<B % <%'+1'
+@>'.><D>.' $E'@?'>KA%1 +?'0'+@>' .<0<D 0>'J<.'
@?'A>.?10<=>!'J +@'.<.>'A1% + C<%'?<=<C +E!'C1BP
$ 0>D'<0'>0>.=E'1''A#.A1?>'J@C@'C1#%D'01+'<%'+1'
0'#?>'C1#.<=>'0+1'+@>'@><.+?'1''1+@>.?' >'#.=>D'&
+@>'A1A>'+1'.>%E'10'@?'B<?+>.!'+@>'S 0='1''.<=10!'
J@1!'@>'<??#.>D'@B!'J1#%D'D>,1+>'@?'J@1%>'.>P
?1#.C>?!' ''0>C>??<.E!'+1'+@>'A.1+>C+ 10'1''@?'A>.?10!'
@101#.!'<0D'>?+<+>' %>K<0D>.'J1#%D'=%<D%E'@<,>'
@<D'+@?'A.1B ?>'#0D>.'+@>'@<0D'1'' >.D 0<0DL' $#+'
+@>'%<++>.'D D'01+'+@ 0H' +'>KA>D >0+!'C10? D>. 0='@?'
D>%C<+>'.>%<+ 10?'J +@' .<0C>!'+1'A#+'@B?>%''?1''<.'
0'+@>'A1J>.'1''+@>'J %E'A10+ '' T

0'+@>'B><0'+B>!' @<.%>??'A.>A<.<+ 10?'J>0+'
'1.J<.D' J +@'+@>'%<0=1#.'<0D',<C %%<+ 10'.>?#%+ 0='
'.1B'D , D>D'C1#0C%?'<0D'B#%+ A% >D'>B$<..<??B>0+?
Q' 1+@ 0='>??>0+ <%'+1'+@>'C10D#C+'1''<'J<.'J<?'<+'
@<0D!R' ?<E?' 1B 0>?' @>'H 0='J<?',>.E'E1#0=!'
J><H' 0'A>.?10&!'@><D?+.10='0'J %%!'?#..1#0D>D'$E'
'>J'D ?C.>>+'C1#0?>%%1.?!'<0D'J@1%%E'D>?+ +#+>'1''+@>'
.>F# ? +>' '#0D? '' ?' 1J0' BA<+ >0C>!'@1J>,>.!

L' N$, %' 8, ' 5 ' 8)%)5 ' ., 5 ' #$,)($%')% ' ! % !'
,4!' ,!' (%3!' FF.,,,! J 14 ' >' '2$,)(!' 5,%!' D !'
,%' E,),G,%)%' 1!',!' ,4!' ,,!' 33!' 0' T1 , ' 5 ' A, ' 5 ' * ;
'I' H<' 5!' , %)!' I H! J' 1,) ' ,.!' .,,!') 5!

J<?' ?+ B#%<+>D' $E' +@<+' 1'' +@>' E1#+@'#%' C@ ,<%.E' 1'' @ ?' C1#.+!' J@1' $#.0>D' '1.' <0' 1AA1.+#0 +E' 1''D ?+ 0CP + 10' L' <?' J>%%' <?' $E' +@>' .>A.>?>0+<+ 10?' 1''+@>' ><A1P % +<0' >K %>?!' J@1' @1A>D' +1' .>>?+<$% ?@' +@>B?>%,>?' 0' +@> .' 1J0' C1#0+.E' #0D>.' @ ?' A.1+>C+ 10' >,>.<%' 1'' +@>?>' %<++>.!' J><.E' J +@' +@>' D>%<E' <%.><DE' >KA>. P >0C>D!' B<D>' 1,>.+#.>?' +1' S 0=' >.D 0<0D' +1' #0D>.M! +<H>' +@>' >0+>.A. ?>' 10' @ ?' 1J0' $>@<%'L' <0D' <??>.' @ ?' %>= + B<+>' A.>+>0? 10?' +1' +@>' C.1J0' 1'' <A%>?!' J@ C@!' +@>E' <??#.>D' @ B!' <' %<.=>' A<.+E' 0' +@>' C1#0P +.E' J<?' .><DE' +1' ?#?+< 0' @>' ?<=<C 1#?' B10<.C@!' @1J>,>.!' H0>J' @1J' % ++%>' .>% <0C>' J<?' +1' $>' A%<C>D' 10' +@>' .>A1.+?' 1'' >K %>?!' J@1?>' B<= 0<+ 10?' .><D %E' >K<==>.<+>' +@>' <B1#0+' 1'' D ?<''>C+ 10' 0' +@> .' 1J0' C1#0+.E' #+!' <%+@1#=@' +@>' ?><?10' @<D' 01+' E>+' <.P . ,>D' '1.' <??>.+ 0=' @ ?' 1J0' A<.<B1#0+' C%< B?!' @>' J<?' D>+>.B 0>D' +1' +1%>.<+>' +@1?>' 1''01' 1+@>.' A1+>0P +<+> T

@<.%>?' >0+>.+< 0>D' ?1' % ++%>' B ?= , 0=' 1'' +@ ?!' +@<+!' 0' +@>' B10+@' 1'' /#0>!' @>' D>?A<+C@>D' <0' >0,1E' +1' +@>' A<0 ?@' C1#.+!' .>F# . 0=' >.D 0<0D?' '#%' %P B>0+' 1''+@>' +.><+E' 1'' <.C>%10<!' $E' < D 0=' @ B' J +@' B>0' <0D' B10>E!' <0D' $E' +@.1J 0=' 1A>0' @ ?' A1.+?' 0' C %E' '1.' +@>' .>0C@' 0<,E' Q' @ ?' =.<C 1#?' A.1A1P ? + 10!R' ?<E?' +@>' .<=10>?>' @ ?+1. <@!' Q' @>' <CC1BM

L' N$, %' ,4!' ,!' (! FF! J ! %'%,) ' % $1,)'' A') 3 , ' % C , ' 3$' 3, % %1' 3! B, A') ' BA,(A' 1%C' 4' ( ) ,; (FF,,, J 1!' 5' * 1,) ' ,4!' 5 5' , ' ', ' 0' A' BA ' 1%; .,,!' (! ,,, J %,%)%' 8, ' 5' ! Y' ' C'))5,% 4,)' 3%,,%' 1!' ,,!' ,4! FF.,!' (! .,!' 2$') ' % %)' 0%(, ' % (%$ % 2$' J' N$, %' ( )($5' A' % '$; ' 3 3),%![' ,4!' ,!' (%3! FF! 1) ' BA,(A' 5 (,5 5' 5,)%)5

A<0 >D J +@ 0'1. B<+ 10 1'' @ ? A.1A1?>D >KA>UD + 10 <=< 0?+ +@> #. H?L ?+<+ 0=! 0C D>0+<%%E! <? < +@ 0= 1'' 01 C10?>F#>0C>! @ ? B<?+>. ? 0+>0+ 10 +1 +<H> <A%>? $E +@> J<E RT

>.D 0<0D ?<J +@> + B > J<? <.. ,>D '1. C1B 0=' +1 N<0 >KA% C + D>C%<.<+ 10 J +@ +@> .>0C@ C1#.+ > <AA1 0+>D < ?A>C <% B ?? 10! 0 1.D>. +1 D1 +@ ? 0 +@> %><?+ 1''>0? ,> B<00>. A1?? $%> @> A>.?10 ?>%>C+>D '1. +@ ? D>% C<+>' +<?H J<? %10?1 D> %,<! $.1+@>. 1'' +@> 1#0+ D> '#>0+>?! <0D %<,>.1 1'' <%<+.<,<! < C<,<% >. A1??>??>D 1'' <% +@>U C11%0>?? <0D <DD.>?? .>F# ? +> '1. D A%1B<+ C ?#CC>?? '

@> <B$<??<D1.! 10 <.. , 0=' <+ +@> .>0C@ C1#.+! '1#0D + <+ >00> 0 <%% +@> $#? > 1'' A.>A<.<+ 10 '1. B B>D <+> D>A<.+#.> '+>. ?>>H 0=' 0 ,< 0 < A. ,<+> <#D >0C> '.1B S 0=' @<.%>?! @> >KA%< 0>D +1 @ B +@> A#.A1.+ 1'' @ ? B ?? 10 0 +@> A.>?>0C> 1'' ? C1#.+ >.? > <??#.>D @ B 1''+@> ?<+ ?'<C+ 10UJ@ C@ N+@> S 0=' 1'' .<=10 @<D >KA>. >0C>D <+ .>C> , 0= 0+>%% =>0C> 1'' @ ? A.1">C+>D >KA>D + 10 <=< 0?+ +@> 0' D>% 1+@ 0=' =<,> @ ? B<?+>. ?1 =.><+ C10+>0+P B>0+ <? +1 ?>> @ ? $.1+@>. B10<.C@? >BA%1E 0=' +@> . <.B?! <0D >KA>0D 0=' +@> . .>,>0#>?! <=< 0?+ +@> >0>P B > ? 1''+@> .1??L J@>.> >,>0 '< %#.> J<? =.><+>. =< 0 +@<0 ?#CC>?? 0 1+@>. J<.?> >' 1''>.>D @ ? <?M

L NF, , %' 8, '5 '8)%)5 ' ($ C 0 A , ' 1%)) '%)5 ,4!',!' (! FFF,! A ' 1%'),0,( )(' 0 A , ' C ' '' &, >D1 01+ C>? %,< <? 10> 0 ,.,)'! A, ') ') ' A ' 1'' +@.>> $.1+@>.?! <%% =>0+%> C<P 5 (,4 ' %' %' 1%)' 0 %' ,)'$; ,<%>.?! 1'' #0$%>B ?@>D @101#.! % C(' %)5' (%'A %5! #$,)> .>B<.H<$%> '1. +@> A%< 00>?? 1'' ($%')% ' ! % ! '2$)(! D! +@> . A>.?10?! +@> >%>=<0C> <0D

? ?+<OC>' 0' +@>' A.1?>C#+ 10' 1''?#C@' J<.?!' >,>0' +@1#=@'
+@>E' ?@1#%D' $>' D .>C+>D' <=< 0?+' +@>' <@1B>+<0?' 1''
'. C<!' 1,>.' J@1B' +@>' A<A<%' ?<OC+ 10' @<D' = ,>0'
A< 0' >KC%#? ,>' . =@+?' 1'' C10F#>?+' >' $>?1#=@+'
@ B' 01+' +1' >BA%1E' +@>' '1.C>?' D>?+ 0>D' +1' ?1' =%1. 1#?'
<' A#.A1?>' <=< 0?+' <0E' 10>' 1''+@>' A. 0C>?' 1'' #.1A>!'
$#+' +1' .>'%>C+' @1J' =.><+' <' ?C<0D<%' +@ ?' B#?+' 0>C>?P
?<. %E' $. 0=' 10' +@>' @. ?+ <0' C<#?>L' <$1,>' <%%!' @>'
C<#+ 10>D' @ B' <=< 0?+' '1.B 0=' <0E' D>? =0?' 10' <P
A%>?!' ? 0C>' +@<+' H 0=D1B' J<?' <' ' >''1''+@>' C@#.C@!' 0
J@1?>' '<,1#.' <0' >KC>A+ 10' J<?' >KA.>??%E' B<D>' $E'
+@>' +.><+E' 1'' <.C>%10<!' J@ C@' .>C1=0 ?>D' @>.' <%P
% <OC>' <OD' A.1+>C+ 10' <?' A<.<B1#0+' +1' >,>.E' 1+@>.'
1$% =<+ 10' %,<?' D ?C1#.?>' J<?' .>?A10D>D' +1' $E'
+@>' A.>? D>0+' 1''+@>' A<.% <B>0+' 1''5<. ?'& 0' <' '1.B<%'
<+ 0' 1.<+ 10!' <??>.+ 0=' =>0>.<%%E' S 0=' @<.%>? ?'
. =@+' +1' <A%>?!' <OD' @ ?' .>?1%#+ 10' +1' >0'1.C>' +'A.>P
, 1#?' +1' @ ?' C.#?<D>' <=< 0?+' +@>' 0' D>%' ?' ?110' <?'
+' J<?' C10C%#D>D!' +@>' H 0=' .1?>' <0D' <$.#A+%E' F# ++>D'
+@>' <A<.+B>0+ T

1B>' D<E?' <'+>.!' @>' 0+>..1=<+>D' +@>' A<0 ?@' <BP
$<??<D1.!' J@>+@>.' @ ?' B<?+>.' J1#%D' 01+!' 0' C<?>' 1''<'
J<.' J +@' 51.+#=<%!' '>>%' J<..<0+>D' $E' +@>' +>.B?' 1''
+@>'%<+>'+.><+E' 0' .>F# . 0=' +@>' C11A>.<+ 10' 1'' .<0C>!'
<0D' 10' J@<+' A%><' +@>' %<++>.' A1J>.' C1#%D' A.>+>0D' +1'
J +@@1%D' +' 1' +@>' '.?+' 1''+@>?>' A.1A1?+ 10?' +@>'
<B$<??<D1.' <0?J>.>D' 0' +@>' <'' .B<+ ,>' '' +' J>.>' <'
D>'>0? ,>' J<.!' $#+' 01+' ''<0' 1''>0? ,>' 10>' 1''@ ?' 1J0'
?>>H 0=L' <0' >KA%<0<+ 10' $E' 01' B><0?' ?<+ ?'<C+1.E' +1

/ E ' '

+@>' .>0C@' B10<.C@' 0D>>D!' @>' ?>>B?' 01+' +1' @<,>'
$>>0' <+' <%%' A.>A<.>D' '1.' +@ ?' 0+>.A.>+<+ 10' 1'' +@>'
C1BA<C+' >' @<D' .>% >D' 10' +!' <?&?>C#. 0=' J +@1#+'
<0E' D1#$+' +@>' 010M 0+>.'>.>0C>' 1'' >.D 0<0D!' ''01+'
@ ?' <C+#<%' C11A>.<+ 10!' 0' @ ?' D>? =0?' <=< 0?+& <A%>?'
@>' C%<#?>' +1#C@ 0=' +@>' . =@+?' 1''+@>' C@#.C@' J<?' +11'
'.>F#>0+' 0' A#$% C' +.><+ >?' +1' >KC +>' <0E' A<.+ C#%<.'
<++>0+ 10' L' <0D' @>' J<?' <?+1#0D>D' <+' +@>' $.1<D'=.1#0D'
+' J<?' 01J' B<D>' +1' C1,>.!' <0D' J@ C@' D>'><+>D' +@>'
?1%>' 1$">C+' A.1A1?>D' $E' +@>' C>?? 10' 1'' 1#?? %%10'
>' C1#%D' 01+' D ?=# ?>' @ ?' C@<=. 0' <0D' 0D =0<+ 10' <+'M
J@<+' @>' D>>B>D' +@>' A>.' DE' 1'' +@>' A<0 ?@' C1#.+'
>' .>'#?>D' < ' '#.+@>.' 0+>.C1#.?>' J +@' %,<L' <0D'
>,>0' ?+<+ 10>D' <' ?>0+ 0>%' <+' @ ?' =<+>!' +1' A.>,>0+' @ ?'
C1BB#0 C<+ 10' J +@' @ ?' ?#$">C+?'LT'+.><+ 0=' @ B' <?'
+@>' >0,1E!' 01+' 1''<0' <%%E!' $#+' 1''<0' 1A>0' >0>BE T'

@>' #0>KA>C+>D' <0D' B>0<C 0=' <++ +#D>!' @1J>,>.!'
<??#B>D'$E' >.D 0<0D!''< %>D' +1' <..>?+' +@>' 1A>.<+ 10?'
1''+@>' .>0C@' B10<.C@!' J@1!' @<, 0=' C1U+ A%>+>D' @ ?'
A.>A<.<+ 10?!' %>'+' >00>' 0' +@>' B10+@' 1'' #=#?+'
6:6!' <0D' C.1??>D' +@>' %A?' <+' +@>' @><D' 1''+@>' B1?+'
'1.BD<$%>' @1?+' J@ C@' @<D' ?C<%>D' +@<+' B1#0+< 0' $<.P
.>.' ?0C>' +@>' ..#A+ 10' 1''+@>' 01.+@>.0' $<.$<. <0?'

T' V#.+<!' %$' 'C' KKK 'K% '
'' %%>0>#,>!' >B1.>?!' <A'
5>+ +1+!' 1%%>C+ 10' D>? >B'+1B'
K,' AA' '78

A')(A' %1C'(),5'
1'' !' ')' 5%%1 ' 7 !'
)(A',)0%) C%)5I B,'
B,A$',)($5,)'' A' '$%'
(%13'0 B !' P,1)5,'' >'
3$4!' %!' 1!' F,,!' 3!' !X

A' 3)5$'%)5')' C' 0'
' %33%%)(' F(,5'%'5;
' ' 0'%51,%,)' BA,(A'5,;
%1 5',)' 1'1%$' A' ;
' 0'A' %,%)!' ' %;
C' BA' 5,%)(' 0 1' A'
)(A',)0%) C%)5I B,'
A % ' 0'%(,)')%4 5'A,1' '
() 13%' 1' (%1C' A'
%3 3A,(' C' A' 1%'),$5

+' J %%' $>' #00>C>??<.E' +1' '1%%1J' @ ?' B1,>B>0+?' 0' D>+< %' +' ?' ?#'' C >0+' +1' .>B<.H!' +@<+' @ ?' C10D#C+' +@.1#=@1#+' J <?X>F#<%%E' D>'>C+ ,>' 0' A. 0C A%>' <0D' ?1#0D' A1% CE' >' <% >0<+>D' @ ?' <%% >?' $E' +@>' B1?+' ? =0<%' <C+?' 1''A>.' DE!'?> G 0='+@> .' '1.+.>??>?' '1.'@ BP ?>%'!' <0D' >0+>. 0='+@> .' C<A +<%?' J +@' <%%' +@>' ,<#0+' <0D' 0?1%>0+' A1.+' 1''<' C10F#>.1.' 0' @ ?' <AA.1<C@' +1' 1B>!' +@>' A1A>' <0D' +@>' C<.D 0<%?' +11H' .>'#=>' 0' +@>' C<?+%>' 1'' +' 0=>%1!' <0D' 10' +@>' ?+' 1'' >C>BP $>.' !' @<.%>?' D>' %>D' 0+1' +@>' C +E' <+' +@>' @><D' 1'' @ ?' , C+1. 1#?' C@ ,<%.E!' '', C+1. 1#?' +' C1#%D' $>' C<%%>D!' J@>0!' <?' <0' +<% <0' @ ?+1. <0' .>B<.H?!' +@>E' @<D' ?C<.C>%E' $.1H>0' <' %<0C>!' 1.' ?A.><D' <'+>0+' 0' +@>' J@1%>' 1''+@> .' A.1=.>?? T

@>' +<% <0?' J>.>' A<0 CM?+.#CH' <+' +@>' <?A>C+' 1'' +.11A?' ?1' D ''>.>0+' '.1B!' <0D' ?1' ?#A>. 1.' +1' +@> .' 1J0!' 0' 1.=<0 G<+ 10!' ?C >0C>!' <0D' B %+<.E' >F# AP B>0+'L' <0D!' ?+ %%' B1.>!' 0' <' .>B1.?>%>??' '>.1C +E' 1'' +>BA>.' J@ C@' @<D' .<.>%E' $>>0' J +0>??>D' 0' +@> .' 1J0' '>#D?' <.'<.>' J<?' C10D#C+>D' 10' A>C#$<.' A. 0C A%>?' 0' +<%E!' <D<A+>D' +1' +@>' C@<.<C+>.' <0D' C .M

0' A '(%?%1, , ',13)5,)'' . ' 3% ') (' ,)' 3% ,%1' 5,4, !' A,'($) C!')') ' 0A,' ' ?%(4,',) 3$ $ <' 5' $%'))' A' B , ' A$ ' Z' (,4, $' F>' , $ $,' %' ' % ,%![' 3!' (, $1'., $1'0$, ') %' 1>' (FF,,,!' T 3 % ')$ $1', 12$%1'), ,5,>' W :$,((,% 5,),' 1!' ,!' ,4!' ,!' 1!' ' 2$,'0$ $ ',' $)' (% %>' 3!' / ! J (,3,)' 1 1, % ' >' 1, % , '3% ,(,3 *% $1'%(, >' , ' ,) ,) ' 3! 64 5!' ,; 2$' , ,$' %(' 3 5, $1' $ 1%')G ' D/!' J' :,%))) ' ' %$5,4$' F $) < 5' % >' *,.,' 5,' %3 , ' 1!' ,,,!' ,4!' $1' ,13) %,) $(% !Z P 3!' FF,F!' ,) ! J 1!' 5' * 1,) ' (F,,,!X 8' ( )($5' %) A' ,4!' .,!' (A!' F.,,! J .,5' #$,)>' B, A' A,' 1% @%4 '3 5,(,)' ($%')% ' !' % !' 2$,)(!' ' 8' ,1 , ' :% ' F' 1%+ , 5,%!' !

' N'

C#.<?+<0C>?' 1''+@>' A>1A%>' @>' $#? 0>??' 1'' ' =@+ 0=!'
0' @>.'+@. , 0=' C1B B#0 + >?!' 0?+><D' 1'' '1. B 0=' A<.+'
1''+@>' .>=#%<.' A.1'>?? 10' 1'' <' =>0+%>B<0!' <?' 0' 1+@>.'
C1#0+. >?' <+' +@ ?' A>. 1D!' J<?' 0+.#?+>D' +1' +@>' @<0D?'
1'' <' '>J'?1%D >.?' 1'' '1.+#0>!' ; ' <?' +@>E' J>.>'
C<%%>D!' J@1' @ .>D' +@>B?>%,>?' 1#+!' J +@' +@>' '1.C>?'
#0D>.' +@> .' C1B B<0D!' C10? ?+ 0=' >KC%#? ,>%E' 1''
@><,E%<.B>D' C<,<%.E!' +1' J@<+>,>.' ?+<+>' J1#%D' A<E'
+@>B' $>?+' @>?>' '1.C>?' C10?+ +#+>D' +@>' C<A +<%!' <?'
+' J>.>!' 1''+@>' B % +<.E' C@ >'!' J@1?>' 1$, 1#?' 0+>.>?+'
+' J<?' +1' >C101B G>' <?' '<.' <?' A1?? $%>' <%%' #00>C>??<.E'
>KA>0D +#.>' 1''@ ?' .>?1#.C>?' >0C>!' +@>' ?C >0C>' 1''
D>'>0C>' J<?' <%B1?+' >KC%#? ,>%E' ?+#D >D' @>' 1$">C+'
?>>B>D' +1' $>!' 01+' ?1' B#C@' +@>' <001E<0C>' 1'' +@>'
>0>BE!' <?' ?>%'%A.>?>.,<+ 10' @>' C1B B10' 0+>.>?+?'
1'' +@>' ' $> 0=' A<.<B1#0+' +1' >,>.E' 1$% =<P
+ 10' +1J<.D?' +@>' ?+<+>' J@ C@' +@>E' ?>.,>D!' +@>E'><? %E'
C<B>' +1' <0' #0D>.?+<0D 0=' J +@' 10>' <01+@>.' +1' ?A<.>'
+@> .' +.11A?' <?' B#C@' <?' A1?? $%>L' #0+ %' <+' %>0=+@'
$<++%>?' J>.>' '1#=@+' J +@' % ++%>' B1.>' A>.?10<%' @<G<.D'
+@<0' <0' 1.D 0<.E' +1#.0>E' @>' B<0M<+M<.B?' J<?'
. ,>++>D' 0+1' A%<+>?' 1'' ?+>>%' 1''?#'' C >0+' +@ CH0>??' +1'
+#.0' <' B#?H>+' $<%% ' @>' ><?>' 1''+@>' ?1%D >.' J<?' ?1'
'<.' C10?#%+>D!' +@<+' +@>' <.+ %%>.E!' 0' <' ? >=>!' J<?' 01+'
<%%1J>D' +1' $>' ' .>D' 10' > +@>.' ? D>' '.1B' ?#0?>+' +1' ?#0P
. ?>!' '1.' '><.' 1'' D ?+#.$ 0=' @ ?' .>A1?>' 5. ?10>.?'
J>.>' B<D>' '1.' +@>' ?<H>' 1''+@> .' .<0?1B!' <0D' $#+' % +P
+%>' $%11D' J<?' ?A %+' 0' <0' <C+ 10' <C@ <,>%%' .>C1.D?'
+J1'>0=<=>B>0+?!' <+' 0=@ <.' <0D' <?+.<C<.1!' <B10='
+@>' B1?+' 01+>D' 1''+@>'+ B>' '1.' +@> .' BA1.+<0+' C10?>M

F#>0C>?' @>' 10>' %<?+>D' '1#.' @1#.?!' <0D' +@>' 1+@>. @<%'' <MD<E' @>' .><D>.' ?' @#.. >D' <%10=' +@.1#=@' <%% +@>' $#?+%>' 1'' <' J>%%MC10+>?+>D' ' =@+!' 0' +@>' C1#.?>' 1' J@ C@' +@>' ' >%D' ?' J10' <0D' %1?+' ?>,>.<%' + B >?L' $#+ J@>0' @>' C1B>?' +1' +@>' C%1?>!' <0D' %11H?' '1.' +@>' % ?+' 1' H %%>D' <0D' J1#0D>D!' @>' ' 0D?' +1' @ ?' ?#.A. ?>' 01+' <' ? 0=%>' B<0' ?%< 0' 0' +@>' ' .?+' 1''+@>?>' <C+ 10?L' <0D' 0' +@>' ?>C10D!' 10%E' 10>!' J@1' @<, 0=' +#B$%>D' '.1B' @ ?' @1.?>!' <0D' $> 0=' #0<$%>' +1' . ?>!' '.1B' +@>' J> =@+' 1'' @ ?' <.B1#.!' J<?' ?#''1C<+>D' 0' +@>' B#D'Z @#?' J<.' $>C<B>' D ?<.B>D' 1'' +?' +>..1.?' 1#.<=>' J<?' 01' %10=>.' >??>0+ <%' 0' <' ?1%D >.L' <0D' +@>' +<% <0!' B<D>' >''>B 0<+>!' ''01+' + B D!' J<?' 0C<A<$%>' 1''>0C1#0+>.P 0=' +@>' <D,>0+#.1#?' D<. 0=' <0D' ?>,>.>' D ?C A% 0>' 1'' +@>' 01.+@>.0' J<.. 1. T

@>' <?+10 ?@ 0=' ?#CC>??' 1'' +@>' .>0C@' J<?' ?+ %%' B1.>' BA#+<$%>' +1' +@>' '.>>' #?>' <0D'<DB .<$%>' 1.=<0P G<+ 10' 1'' +@> .' 0'<0+.E!' J@1?>' ?+.>0=+@' %<E' 0' +@>' J ??' B>.C>0<. >?' <C@ <,>%%' <?C. $>?' +@>' B ?'1.P +#0>?' 1'' @ ?' 0<+ 10' C@ >'%E' +1' +?' >KC%#? ,>' .>% <0C>' 10' C<,<%.E '' @ ?' ?>., C>!' D#. 0=' +@>' J@1%>' 1''+@>' B DD%>' <=>?!' J<?' C10? D>.>D' <B10=' +@>' #.1A><0' 0<+ 10?' +@>' B1?+' BA1.+<0+!' +@>' @1.?>' $> 0=' ?+E%>D!' $E' J<E' 1''>B 0>0C>!' ' +@>' $<++%> ' @>' B>B1.<$%>' C10'% C+' 1'' @<.%>?' +@>' 1%D' J +@' +@>' J ??' 1#0P +< 0>>.?!' @1J>,>.!' 0' J@ C@' +@>' %<++>.' $.1H>' 0' A >C>?

$' ' 8, ' 5 ' %' ,'$ ' ,. $G,),' 5K % ,% ' ,4! F.,,,! 5 ' *%14 %C' 1!' ,!' , ' (!,,,! ,1!' J' %(A,%. ,' , ']' %(A,%. ,' K ' 5 >' ,) ,) ' ,4! .!' J'),)%' %' :$ %' ,4! ,,!

/ D E ' '

+@>' C>%>$.<+>D' #.=#0D <0' 1.D100<0C>!' C10?+ +#+ 0='
+@>' ' 0>?+' $1DE' 1'' C@ ,<%.E' 1'' +@>' <=>!' D>B10?+.<+>D'
+@>' C<A<C +E' 1'' 0'<0+.E' L' <0D' +@>' +<% <0' J<.?!' 0'
J@ C@' J>' <.>' 01J'>0=<=>D!' <+' %>0=+@' '#%%E' .>>?+<$P
% ?@>D' +?' <0C >0+' ?#A>. 1. +E

@>' J ??' J>.>' '1.B>D' 0+1' $<++<% 10?' ,<.E 0='
'.1B' +@.>>' +1' > =@+' +@1#?<0D' B>0' ><C@' @>E' J1.>'
% ++%>' D>'>0? ,>' <.B1#.!' <0D' +@> .' A. 0C A<%' J><A10'
J<?' +@>' A H>!' > =@+>>0' '>>+' %10=' 1.B>D' 0+1' +@>?>'
?1% D' $<++<% 10?!' J@ C@!' $. ?+% 0=' J +@' ?A><.?' <%%'
<.1#0D!' .>C> ,>D' +@>' +>C@0 C<%' <AA>%%<+ 10' 1'' +@>'
" " ' 1.' A1.C#A 0>!' +@>E' A.>?>0+>D' <0' 0,#%0>.P
<$%>' '.10+' 10' >,>.E' F#<.+>.' 0' +@>' %>,>%' '>%D!' J +@'
'.>>' ?C1A>' <%%1J>D' '1.' <C+ 10!' +@>E' $1.>' D1J0' <%%' 1AP
A1?+ 10!' <0D' .>C> ,>D' #0?@<H>0' +@>' B1?+' D>?A>.<+>'
C@<.=>?' 1'' +@>' ?+>>%MC%<D' C<,<%.E' 10' +@> .' +>.. $%>'
<..<E' 1'' A H>?' @>E' J>.>' +11' #0J >%DE!' @1J>,>.!'
'1.' .<A D' 1.' C1BA% C<+>D' B<01>#,.>L' +@>E' J>.>' ><? %E'
D ?C10C>.+>D' $E' <0E' #0'1.>?>>0' BA>D B>0+!' 1.' ..>P
=#%<. +E' 1'' +@>' =.1#0DL' <0D' +@>' >,>0+' A.1,>D' +@<+'\
+@>' A<0 ?@' '11+!' <.B>D' J +@' +?' ?@1.+' ?J1.D?' <0D'
$#CH%>.?!' $E' $.><H 0=' 0' #0D>.' +@>' %10=' A H>?' 1'' +?'
>0>BE!' C1#%D' ?#CC>>D' 0' $. 0= 0=' @ B' +1' C%1?>' <C+ 10!'
J@>.>' @ ?' '1.B D<$%>' J><A10!' J<?' 1'' 01' <,<%' +'
J<?' '+A><+ 0=' +@>' <0C >0+' D>??10' 1'' +@>' M 1B<0'
%>= 10' <0D' +@>' <C>D10 <0' A@<%<0K T

%(A,%. ,' ' 5 % C4,$ ' ,)' A,' 1,)$ ' %(>'
O %' ,4!' ,,,!' J'8, ' 5' % ($)' 0' A,' (4 % 5'1,,%C'
,'$' 5' *%14 %C' 1',!' ,! ,) ,$,)' 0' A' : @' A%'
A1!J !? .,,'8, ' $,')>' (%3,$% 5') % C'%' A' %5>'
3 ,' ,4!' ,,!' 3!' D !' .%) %' '%)5'5 0 (' ,13$ 5'

0 <.+ %%>.E! +@> .>0C@ J>.> <+ +@ ?+ B> 0 <D,<0C> 1'' +@> +<% <0?! A>.@<A?+ 1'' >,>.E 0<+ 10 0 #.1A> @> +<% <0?! 0D>>D! J>.> ?1 >KC>>D 0=%E D>'>C+ ,> 0 +@ ?+ D>A<.+B>0+! +@<+ +@> .> $>?+ ' >%D A >C>?+ C10? ?+>D 1'' ?B<%% C1AA>.' +#$>?+ C1,>.>D J +@ J11D <0D @ D>?' +@>E J>.> B1#0+>D 10 #0J >%DE C<.. <=>?+ D.<J0 $E 1K>0! <0D '1%%1J>D $E C<.?+ 1.' J<==10?+ %1<D>D J +@ ?+10> $<%%?' @>?>' =#0?+ J>.> J1.H>D ?1' <JHJ<.D%E! +@<+ +@> $>? >=>D! ?<E?+ # CP C <.D 0 ! @<D + B> $>+J>>0 +@> D ?C@<.=>?+ +1 .>A< .' +@> B ?C@ >'' 0'% C+>D $E +@>B ' .1B +@>?>' C .C#BP ?+<0C>?! <.+ %%>.E J<?+ @>%D 0 ?1 % ++%> .>A#+>! +@<+ ?1B> 1'' +@> B1?+ C1BA>+>0+ +<% <0 J. +>.?+ +@1#=@+ + B =@+ $> D ?A>0?>D J +@ <%+1=>+@>.' 0 ' >%D >0=<=>P B>0+? T

@> .>0C@! 10 +@> 1+0>.' @<0D! J>.> A.1, D>D J +@ <' $><#+ '#% +.< 0 1'' 1.D0<0C>! C10? ?+ 0=' 1'' $.10G> C<0010 <$1#+' > =@+' '>>+ 0 %>0=+@! <0D B<0E ?B<%%>.' A >C>? '' @>E J>.> % =@+%E B1#0+>D! D.<J0 $E @1.?>?! <0D ><? %E H>A+ A<C> J +@ +@> .<A D B1,>P B>0+?+ 1'' +@> <.BE ' @>E D ?C@<.=>D .10 $<%%?! <0D J>.> ?>.,>D J +@ <DB .<$%> ?H %%! 0+ B D<+ 0=' +@> .' >0>B >?+ $E +@> .<A D +E <0D <CC#.<CE 1'' +@> .

A B, +# && 4C 1 5 3 ,% 1! ,! 33! D6 D ! J %(A, $ 3 %) . , ! P ,4! =.,,! %. ,! 5 % :$ 0@ ,4! ,,,! T (! ==E! 2!X ', ,)'$ % J ,'$ '5 *%14 %C $4, $3 %! A% A F3 5 5 %1, %)5 %(,(A $5 4 .,. 5 %0]: $,((,% 5,), 3 %@ 0 A A %3 0) % C .)))%1 0 Y (%))) [BA,(A A ( ) $, 4 0, 5 %'%,), ,))(A '%. A , 3, (% A %1 1%)) % 4 0 ! %) . C % A% ,1 ,) % C L :$,((,% 5,), ! 5K %> AA 68! 6

"8.>! <0D >< ? %E D>B 1% ?@ 0= +@> . ' '1.+ ' C<+ 10?! J@ C@ $>'1.> +@ ? 0 ,<? 10 J>.> C10?+.#C+>D J +@ % ++%> ?+.>0=+@ 1.' ?C >0C> T

@> .<A D ?#CC>??>?' 1 '' +@> .>0C@ ?A.><D C10?+>.P 0<+ 10 <B10=' +@> +<% <0 ?+<+>?! J@1 01J! '1.' +@> ' .?+ + B>! ?>>B>D +1 '>>% +@> >K ?+>0C>' 1 '' <' C1B B10 0+>.>?+! <0D +@>' 0>C>?? +E 1 '' >'' C >0+ C10C>.+ ' >.P D 0<0D J <?' <C+ ,> 0 A.1B1+ 0=' +@>?>' D ?A1? + 10?! +@ 1#=@ @ ?' B 0 ?+>.?! <.C %<??1 D>' %< >=<' <0D %10?1 D>' %, <L +@>' %<?+ 1 '' J@1B @<D F# ++>D +@>' .>0C@ C1#.+ 10 H?' >0+.<0C>' 0+1 +<%E! <0D J +@P D.<J0 +1 >01<' .1B +@ ?' A1 0+ @>' 1A>0>D <' C1.P .>?A10D>0C>' J +@ 1D1, C1 '1.G<! J@1 01J' $>=<0 +1 #0D>.?+<0D +@<+ @>' @<D $.1#=@+ <' +>.. $%>' >0= 0> 0+1 A%<E! J@1?>' B1,>B>0+?! @1J>,>.' B ?C@ >,1#?' +1 @ B?>%'! J>.>' $>E10D @ ?' ?+.>0=+@ +1 C10+.1%' %,<' >0D><,1#.>D +1 0'%<B>' ?+ ' '#.+@>.' @ ?'">%1#?E 1 '' +@> .>0C@! J@1 @<D <%.><DE = ,>0 @ B B<0E ?>. 1#?' C<#?>?' 1 '' D ?=#?+L' <0D! 0 1.D>.' +1 D>+<C@ @ B B1.>' >''>C+#<%%E '.1B @<.%>? ?' 0+>.>?+?! >0C1#.<=>D @ B J +@ +@>' @1A>?' 1 '' '1.B 0=' <' B<+. B10 <% <%% <0C>' '1.' @ ?' ?10 J +@ 10>' 1 '' +@> 0'<0+<?' 1 '' A< 0 ' + +@>' ?<B>' + B>! @>' #?>D >,>.E' >''1.+ +1 $. 0=' <$1#+' <' C11A>.<+ 10 $>+J>>0 +@>' D#H>' <0D +@>' .>A#$% C 1 '' >0 C>! +@#?' 1A>0 0=' +@>' J<E +1 +@>' C>%>$.<+>D %><=#>' J@ C@ J<?' C10C%#D>D 0 +@>' '1%%1J 0=' E><. 'T

T 5<#%' /1, ' ?+' % $' ' A') ' 5 ' , .% %(2$, 5 A,1; ' O' <C@ <,>%% ! .+>' D>%%< 0 ' A ') , ' % , 0%(,)' 0 #>..<! % $', A ' . ,') ,)' A, ' 5,00,($ ' +' V#. +<! ?+! D>' >.0<0D1 1, ,)! 8 ' B% ' $4 2$) C >% <+1% C1! % $' ' C' KKK, O) ')' .% , $ ' A ' ' A

@>' 1B<0' A10+ '"' @<D' %1?+' 01' + B>!' <'+>.' +@>' <AA><.<0C>' 1"'+@>' .>0C@' <.BE' 0' +<%E!' 0' A.>?? 0=' +@>' A<0 ?@' C1#.+' +1' '#%' %' +?' >0=<=>B>0+?' >' >0D><,1#.>D' +1' A.1A + <+>' +@>' =11DMJ %%' 1"'+@>' ?1,>P .> =0?' $E' ?>,>.<%' BA1.+<0+' C10C>?? 10?' >' =.<0+P >D' +1' +@>B' <0D' +@> .' ?#CC>??1.?' +@>' ' 1.' +J 1M' 0 0+@?' 1"' +@>' + +@>?!' +@.1#=@1#+' +@>' D1B 0 10?' 1"' <?+ %>L' <0' .0A1?+' ?+ %%' '1.B 0=' A<.+' 1"'+@>' .>=#%<.' .>,>0#>' 1"'+@>' C.1J0 T' >' C<#?>D' $#%%?' 1"'C.#?<D>' +1' $>' A.1B#%=<+>D' +@.1#=@1#+' A< 0!' =.<0+ 0=' <+' +@>' ?<B>' + B>' <' +>0+@' 1"' +@>' >CC%>? <?+ C<%' .>0+?!' J +@' +@>' #0D>.?+<0D 0=' +@<+' +@>' A.1C>>D?' ?@1#%D' $>' D>,1+>D' +1' +@>' A.1+>C+ 10' 1"' +@>' @1%E' ?>>' 1J<.D?' +@>' C%1?>' 1"' +@ ?' E><.!' 6:6!' 1.' +@>' $>= 00 0=' 1"'+@>' '1%%1J 0=!' @>' C10'>..>D' +@>' + +%>' 1"'Q' <+@1% CR' 10' +@>' A<0 ?@' ?1,>.> =0?!' 0' C10? D>.<+ 10!' <?' ?' ?+<+>D!' 1"'+@> .' >B 0>0+', .+#>?!' +@> .' G><%' 0' D>'>0C>' 1"'+@>' +.#>' '< +@' <0D' +@>' <A1?+1% C' ?>>!' +@> .' .>'1.B<+ 10' 1"' C10,>0+#<%' D ?C A% 0>!' +@> .' ?#$"#=<+ 10' 1"'+@>' 11.?' 1"' .<0<D<!' <0D' +@>' A#.' C<+ 10' 1"' +@> .' D1B 0 10?' '.1B' +@>' />J ?@' @>.>?E' @ ?' 1.+@1D1K' + +%>!' J@ C@' ?+ %%' C10+ 0#>?' +1' $>' +@>' ">J>%' B1?+' A.G>D' 0' +@>' A<0 ?@' C.1J0!' @<?' $>>0' <AA.1A.<+>D' 0' <' A>C#%<.' B<00>.' +1' >.D 0<0D' <0D' ?<$>%%<!' J@1' <.>' #0M

5,00)' %,%)'($ '%)5'$),;
0 1C' $ %,) 5'A,' 3$%,)'
0 '%4,,C'%)5' 315)(! 8'
5,5') ,. ' '4' 5!' #$,)>'
($%')% ' ! %! ' 2$,)(!'
6

L' %,%)%' 8, '5' 3%)%'
1!' ,,>' ,4!' FF.,!' (!'.,! J %%G%

D>' >0D1G<!' 10<.F#<D>' ?A'
%$' 'C'K,

@?' $.<0C@' 1"+@>'.>,>0#>'
E>%D?'<+'+@>'A.>?>0+D<E!'<CC1.DP
0='+1' <$1.D>!'<$1#'! ! '
.><%?!' 1.' !8 ! '.<0C?' +!'
0U.<.>' (,3,0' D ?A<=0>'
+1B',' A'8 L'4D'>D' T

,>.?<%%'" .>C1=0 ?>D 0 @ ?+1.E <? 5 > / * 1

>.D 0<0D J<? +11 ?>0? $%> 1'' +@> A>. % +1 J@ C@ +@> 1CC#A<+ 10 1'' <A%>? $E +@> .>0C@ J1#%D >KP A1?> @ ? 1J0 0+>.>?+?! +1 .>F# .> <0E ?+ B#%<0+ +1 <C+ 10 '.1B +@> 1B<0 A10+ '' < ,<% A.>A<.<+ 10? @<D $>>0 =1 0= '1.J<.D D#. 0= +@> ?#B B>. 0 +@> A1.+? 1'' <% C < <0D # A#?C1< C10? D>.<$%> <.P B<B>0+ J<? B<D> .><DE '1. ?>< $E +@> %<++>. A<.+ 1'' >C>B$>.! <+ % C<0+! <0D A%<C>D #0D>. +@> C1BP B<0D 1'' <%C>.<0 D> >F#>?>0?! 1#0+ D> .>,>0+1 @> %<0D '1.C>? J>.> >0+.#?+>D +1 10?<%,1 D> 1.P D1,<! $>++>. H01J0 0 @ ?+1.E <? +@> .><+ <A+< 0 0?+.#C+ 10? J>.> <+ +@> ?<B> + B> ?>0+ +1 +@> , C>M

L N$, % 4% (% %)5 A 3%), A A, ,%) 0,F A 5% F%)5 K' %) % A (DH ! P8, 5 8)%)5 ,4! ,,! (! F ! J C 5 %') C ===' (! ,F!X % C) ,(, B, A ' % 3% ,(,5% , C % % %5C ( )0 5 ,)!% 0 4 $% C DH6! P 3$ 3! 3! (.,,!X A 3 3 %((5,)"' * 1,) 5 ,')5 (13 ,; 1) 5,)%)5 %)5 %4 %0 A , ( )2$ 0 : %)%5% 4C %) 0 ,)"' A 1 A , 0 *A , ,%) A, A); + C 5 4C A '',)' 0 %)(! 8 A%5 .)') 0% % %55 A 1 A$,)1 A%)') 0A, 4 , 0 < A, 3 5$(5 % 1) %)(0 1 %)$14 0 A (% 5,)% BA,(A 5 A,1 $4 , $ A , 0 *% A ,(! A 3, A 0 *%; A ,(B%) B ,)' A C% A $ 0 *% , ,)5 5 0 %') A%.,)"' 4)' '+.)' A $,%)' 3 ,)(3A) %4 $' A 1,55 0 A ,'A A %)5 5 ! 0 %') % A 4 ',)),)"' 0 A A,) A ( ) $ C! B, 1% @ ,)' ( ); ($,) A% % A $'A A 3A % &' (#=#& ! &' % %33 , 5 %0 1% 2$% C B, A% 1% B $5A%. % BA,1 ,(% %33 % ; %)(, % C %) % 5 ,)) ' , A', ,'3 0 (C( ))%) A A 3%), A ,5, 1 BA,(A ; 2$, A% % B 5 A%.,)"' ; 0)(' 4 A% 1% ($,) %)5 %0 1,),)) $) A $5 4 F; 3 5 ,) A 0 1 ')5 , , A 0 4., $ C ,)(; (')5 , % '$ $% C5) 4C)', A B , 4C A (; 3)5,)"' 1 0 Y *% A ,('',)' ![

.1E' 1'' C %E!' +1' A.1, D>' '1.' +@>' ?>C#. +E' 1'' +@<+' ?%<0D!' <0D' +1' @1%D' @ B?>%'' 0' .><D 0>??' +1' <C+T 0' C10C>.+' J +@' +@>' A<0 ?@' '%>>+ T

>.D 0<0D!' @1J>,>.!' D>+>.B 0>D' +1' ?>0D' 10>' B1.>' >B$<??E' +1' @<.%>?' !' $>'1.>' C1B 0=' +1' 1A>0' .#A+#.>' J +@' @ B ' >' ?>%>C+>D' '1.' +@ ?' B ?? 10' /#<0' D>' %$ 10' <0D' 0+10 1' D>' 10?>C<!' $.1+@>.' 1'' +@>' $?@1A' 1''+@<+' 0<B>!' J@1B' J>' @<,>' <%.><DE' 01+ C>D' <?' ?#A>. 0+>0D>0+' 1'' +@>' 0D <0' D>A<.+B>0+' ' @>' +J1' >0,1E?' .><C@>D' 1B>!' /<0#<.E' 74+@!' 6:8!' +@>' ?<B>' D<E' 10' J@ C@' @<.%>?' ?>+' 1#+' 10' @ ?' B<.C@' '1.' <A%>?' ' @>E' '1%%1J>D' +@>' <.BE!' <0D' 10' <.. , 0=' <+' >%>+. !' <$1#+' +J>0+E' B %>?' '.1B' +@>' C<A +<%!' J>.>' <DB ++>D' +1' <0' <#D >0C>' $E' +@>' B10<.C@!' J@1'.>C> ,P >D' +@>B' 0' +@>' A.>?>0C>' 1''@ ?' 1'' C>.?' @>' <B$<?P ?<D1.?' '.>>%E' >0#B>.<+>D' +@>' ,<. 1#?' C<#?>?' 1''C1BP A%< 0+' >0+>.+< 0>D' $E' +@> .' B<?+>.' <=< 0?+' +@>' .>0C@' H 0=L' +@>' 0?#%+' 1''>.>D' +1' @ B' 0' +@>' A>.?10' 1''@ ?' B 0 ?+>.!' %10?1' D>' %,<L' +@>' C10+#B>% 1#?' +.><+P B>0+' 1''+@>' A1A>!' <0D' '1.C $%>' 1CC#A<+ 10' 1''+@>' '1.P +.>??>?' <0D' >?+<+>?' 1'' +@>' C@#.C@L' <0D!' ' 0<%%E!' +@>' >0+>.A. ?>' <=< 0?+' <A%>?!' +@>' C%< B?' +1' J@ C@' <?' <' A<A<%' ' >''C1#%D' 1''. =@+' $>' D>+>.B 0>D' 0' 01' 1+@>.' J<E' +@<0' $E' +@>' <.$+.<+ 10' 1'' +@>' A10+ ''@ B?>%'' @1#%D' S 0=' @<.%>?' C10?>0+' +1' <CC>A+' +@ ?' <.$+.<P + 10!' +@>E' +>0D>.>D' +@>' =11D' 1'' C>?' 1''+@> .' B<?+>.' <?' B>D <+1.' $>+J>>0' +@>' A<.+ >?L' ?@1#%D' @>' D>C% 0>

L' N$,K, %' 8, '5'8)%)5 ' 5(G 5' *% 4%+% ')% ' !' (%3!' F ,!' J '#$,) %)%' 3%) ' %) 'H6!
* 4 ' 1!',!3! !J :%,)>

+!' @1J>,>.!' +@>' S 0=' 1'' A< 0' ?+11D'U<$?1%,>D' '.1B' < .' '#.+@>.' 1$% =<+ 10?' 1'' <B +E' J + 'U@ B!' $E' +@>' +>.B?' 1'' +@>' +.><+E' 1'' <.C>%10<!' J@ C@' >KA.>??%E' .>C1=0 ?>D!' $?' . =@+' +1' 0+>.'>.>' 0' D>'>0C>' A'' +@>' C@#.C@'T

@<.%>?!' J@1&C1#%D' 01+' D ??>B$%>' @ ?' 0D =0<+ 10' D#. 0=' +@ ?' D ?C1#.?>!' .>+$.+>D' J +@U' =.><+' <C. B10E!' J@>0' +' J<?' C10C%#D>D!' 10' +@>' C10D#A+' 1'' >.D 0<0D!' J@ C@'@>' ?+ =B<+ G>D' <?' A>.' D 1#?[' <CC#? 0=' @ B' 1''U' D>% $>.<+>' D>? =0' +1' C .C# A,>0+&@ 0"!' $E' 0+.1D#C 0=' 0+1' +@> .' +.><+E' +@>'X'/<&# >' .>?A>C+ 0=' +@>' A1A>' ?' +1' +@>'U>KA>D + 10' <=< 0?+' <A%>?!' @>' @<D' 01J' =10$' +11' '<.' +1' .>C>D>L' <0D' +' J1#%D' $>' ?110' >01#=@' +1' C<0,<??' +@>' F#>?+ 10' 1''. =@+' J@>0' @>' @<D' =1+' A1?P ?>?? 10' 1'' +' ?' C1#.+ >.?!' <+' +@>' ?<B>' + B>!' J +@' +@>' BA>+#1? +E' 1'' +@> .' 0<+ 10!' @> =@+>0>D' $E' +@>' 0?1%>0C>' 1''?#CC>??!' +1%D' +@>' >0,1E?' +@<+' +@>E' H0>J' J>%%' >01#=@' @1J' +1' D>'>0D' +@> .' . =@+?' J +@' +@> .' <.B?L' <0D' +@<+' S 0=' >.D 0<0D' J1#%D' ' 0D' +@>' .>0C@' C@ ,<%.E' >0>B >?' 1''F# +>' <01+@>.' ?1.+' '.1B' +@>' @1% D<E' + %+>.?' 1'' .<0<D<

@>?>' +<#0+?' %>D' +1' B#+#<%' .>C. B 0<+ 10!' #0+ %' <+' %>0=+@' 10?>C<!' +@1#=@' 0<+#.<%%E' <' ?>D<+>' A>.?10!' J<?' ?1' '<.' +.<0?A1.+>D' J +@&' <0=>.!' +@<+' @>' >KC%< BP >D!' Q' @>' ??#>' +@>0' B#?+' $>' %>'+' +1' 1D!O <.B?' B#?+' D>C D>' + < 0 D' A.1D#C 0=' +@>' 1. = 0<%' +.><+E!' $><. 0=' +@>' ? =0<+#.>?' 1''+@>' +J1' B10<.C@?!' @>' +1.>

L' 1%5 G'8, '5' C' 33' H J HD!J:%,4%C' * 1>' *% ,(+ !(%3!(FFF.,,,!J ,> 3)5!' 8, ,%'5' 3%,,%' ,4!' 1)5, 3$4,2$ %!' 1!'F,,!' F,F!'(%3!',.!

+ 0 A >C>? $>'1.> +@> >E>? 1'' @<.%>? <0D @ ? C1#.+ +@>?<B> + B>@>C1B B<0D>D+J1 A<0 ?@H0 =@+? J@1 ?>.,>D 0 +@> .>0C@ <..<E +1 J +@D.<J '.1B +! #0D>. A< 0& A'' 0C#.. 0=+@> A>0<%+ >? 1'' +.><?10 @> .>0C@ C<,<% >.? J>.>?1 B#C@ 0C>0?>D $E +@ ? <#D<C 1#? T<C+10 +@<+ +@>E J1#%D @<,> ?> G>D +@> >0,1E?L <0D A <%% A.1$<$ % +E 1''>.>D , 1%>0D>!+1 +@> .> A>.?10?! $#+ '1. @<.%>? ? 0+>.A1? + 10! J@1 B +@ B1.> C11%0>?? ℕC<#?>D +@>B + 1 $> C10 D#A+>D '.1B @ ? A T>?>0C>! <0D ?>0+ $<CH #0D>.< ?<'> >?C1.+ +1 1B> #C@ <.> +@> C .C#B?+<0C>? .>A1.+>D $E +@> .>0C@ <0D +<% <0 J.+>.? 1'' +@ ? .>BU&H<$%> 0+>., >J @>E J>.> 01+ <J<.> +@<+ +@> D.<B<+ C >K@ $ + 10! <? '<.< ? +@> <B$<??<D1.? J>.>C10C>.0>D! J<? <%% A.>, 1#?%E C10C>.+>D $>'1.> +@> . D>A<.+#.> '.1B A< 0 T

@<.%>? A.>??>D '1.J<.D 10 @ ? B<.C@ J +@1#+ '#.+@>.< D>%<E %A@10?1 !%1? 0=@ ? C10' D>0C> <0D B<.+ <% C1#.<=>! +@> 10%E , .+#>? @> A1??>??>D! <+ +@> C. ? ? J@>0 +@>E J>.> B1?+ D>B<0D>D! @<D A.>P C A +<+>%E <$<0D10>D @ ? H 0=D1B J@ %> +@> .>0C@

L :)G% '5 ., 5 #$,)($ 5 ,)% $ % 2$, 1) % ')% ! % ! '2$,)(! '5,% ! 1) % ') 3 ,$ 2$%1 5 +$ D ! J N$, % ' ,4! ,! (%3! F ,,,! J ,) ,3 $1 0) $1 ' 1 1%5 G 8, 5 C %3 A %)$1 5 (1% $ .5 ! (! (FFF.,,,! J ! ? .,' 8, ,$ 3 (5% ! ,)' 1%)5% , ,4! , 3! D ! J %)$G% 8, 5)),)) (% $ *% (%> %') 1 ,! ,4! ,! (! .,! 3, $ $1 ,5)%))5% %)> A, %33 % 0 1 % 0 2$,3 ,$ ($ P ,5 (%> % C K 5% 5 A 1) A 4 ; . , X 3%(, . , (A, ' %3A$1 0 A ,) ., B4 ,) BA,(A A %(% 2$,$5,(% ,),1,(> %C)),)) (% .,' ,% !Z 3! (F ,.! 2$, 5,), % 1, 5%) !

J>.> <+ 1B>! <0D+<H>0 .>'#=> 0 C %E! J@>.> @>
'1.B<%%E <$D C<+>D +@> C.1J0 0 '<,1#.' 1'' @ ? ?10!
>.D 0<0D ' @ ? A. 0C>! +@>0 +J>0+EM' ,> E><.?
1'' <=>! J@1?> <B <$%> B<00>.? J>.> .>0D>.>D ?+ %%
B1.> <++.<C+ ,> $E C10+.<?+ J +@ +@> '>.1C 1#? +>BM
A>+ 1''@ ? '<+@>.! J<? A1??>??>D 1'' +<%>=<+ <0D >0>.=E
C1BA>+>0+ +1 +@> A.>?>0+ >B>.=>0CE! @<D @> $>>0
?#?+< 0>D $E @ ? A>1A%> ' #+ +@> %<++>.! $>? D>?
$> 0=?+.#CH J +@ +@> ?<B>A<0 C J@ C@ @<D A<.<%E?P
>D +@> 1+@>.' ?+<+>?' 1'' +<%E! @<D +11 % ++%> 0+>.>?+ 0
+@> =1,>.0B>0+ +1 $> J %% 0= +1 @<G<.D B#C@ 0 +?
D>'>0C> ' C@<0=>' 1''DE0<?+E J<? 10%E <C@<0=>' 1''
B<?+>.?! $E J@ C@ +@>E @<D % ++%> > +@>.' +1 =< 0 1.
+1 %1?> @1#=@ '<,1#.<$%E 0C% 0>D +1 >.D 0<0D!
+@>E .>'#?>D +1 ?+<0D $E@ B 0 @ ? A>. %1#? >K+.>P
B +E ' @>E =<,> J<E 0 >,>.E D .>C+ 10 <? +@>
.>0C@ <D,<0C>D! .>0D>. 0= @1A>%>?? >,>.E <++>BA+
1''+@> .' ?A . +>D E1#0= B10<.C@ +1 .<%%E +@>B! + %% <+
%>0=+@ 01 <%+>.0<+ ,> J<? %>'+ $#+ +1 <$<0D10 @ ?
D1B 0 10? +1 +@>' >0>BE! J +@1#+ ?+. H 0=' < $%1J 0
+@> .' D>'>0C>' >' J +@D.>J +1 +@>' 0> =@$1#. 0='
?%<0D 1'' ?C@ <! J@>0C>' @>' ?110 <'+>.' A<??>D 0+1
C %E! <0D 1CC#A >D @ B?>%'' +@>.> 0 C1%%>C+ 0= +@>
'.<=B>0+? 1''@ ? A<.+E! #0+ %T+@>' + B>' ?@1#%D <0 ,>
'1.' B1.> D>C ? ,> <C+ 10 T

@<.%>? ' B<D>' @ ? >0+.<0C>' 0+1 <A%>? <+
+@>' @><D 1'' @ ? %>= 10?! >$.#<.E 77! 6:8! @<, 0=

$ 1! 5 ' * 1,) ' ,4! .,,! , ') ,) ' 1! ,,,! ,4! FF.,!
(A! F.,! J 1! 5 ' E,) $. ' J $1 1) ' ,% 5, %3 ,'
%3! , ' * ' 5 ' 1! 1! 1! ,,,! ,4! .,! (! ,! ,,!
F,,!3! ! J (! 1 1, % ' >

‘ *8 ‘ E !‘ ‘ * ! I

+.<,>.?>D‘ +@ ?‘ J@1%>‘ >K+>0+‘ 1’‘ @1?+ %>‘ +>.. +1.E‘ 0‘ %>??‘ + B>‘ +@<0‘ J1#%D‘ $>‘ 1CC#A>D‘ $E‘ <‘ ’<?@ 10<$%>‘ +1#. ?+‘ 1’‘+@>‘A.>?>0+‘ D<E‘ @>‘ 1$">C+‘ 1’‘ @ ?‘ >KA>P D + 10‘ J<?‘ 01J‘ <C@ >,>DL‘ @>‘ ?>>B>D‘ +1‘ @<,>‘ .><C@>D‘ +@>‘ C10?#B B<+ 10‘ 1’‘ @ ?‘ J ?@>?L‘ <0D‘ <%+@1#=@‘ @>‘ <??#B>D‘ +@>‘ + +%>?‘ 1’‘S 0=‘ 1’‘ C %E‘ <0D‘ 1’‘/>.#?<P %>B!‘ <0D‘ <’’>C+>D‘ +@>‘ ?+<+>‘ <0D‘ <#+@1. +E‘ 1’‘>BA>.1.!‘ @>‘ +11H‘ 01‘ B><?#.>?‘ ’1.‘ A.1?>C#+ 0=‘ @ ?‘ C@ B>. C<%‘ >0+>.A. ?>‘ <0E‘ ’#.+@>.‘ >‘ >,>0‘ 0>=%>C+>D‘ +1‘ A.1P , D>‘ ’1.‘ +@>‘ ?>C#. +E‘ 1’‘ @ ?‘ A.>?>0+‘ C10F#>?+L‘ <0D!‘ J +@1#+‘ $>?+1J 0=‘ <‘ +@1#=@+‘ 10‘ +@>‘ =1,>.0B>0+‘ 1’‘ @ ?‘ 0>J‘ D1B 0 10?!‘ .>? =0>D‘ @ B?>%’‘+1‘ +@>‘ % C>0+ 1#?‘ <0D‘ >’’>B 0<+>‘ A%><?#.>?‘ ?1‘ C10=>0 <%‘ J +@‘ +@>‘ ?1’+‘ ,1%#A+#1#?0>??‘ 1’‘ +@>‘ C% B<+>!‘ <0D‘ @ ?‘ 1J0‘ C@<.<CP +>. T

@ %>‘ @<.%>?‘ J<?‘ +@#?‘ J<?+ 0=‘ @ ?‘ + B>‘ <0D‘ .>?1#.C>?‘ 0‘ ’. ,1%1#?‘ <B#?>B>0+!‘ <‘ D<.H‘ ?+1.B‘ J<?‘ =<+@>. 0=‘ 0‘ +@>‘ 1.+@‘ @>.>‘ J<?‘ 01+‘ <‘ ?+<+>‘ +@.1#=@‘ J@ C@‘ @>‘ @<D‘ A<??>D!‘ @1J>,>.‘ ’. >0D%E‘ +1‘ @ ?‘ C<#?>!‘ J@ C@‘ @<D‘ 01+‘ C1BA%< 0+?‘ +1‘ B<H>‘ 1’‘@ ?‘ 0?1%>0C>!‘ @ ?‘ $.><C@‘ 1’‘ ’< +@!‘ @ ?‘ 0’. 0=>B>0+‘ 1’‘ +@> .‘ . =@+?!‘ <0D‘ @ ?‘ >K1.$ +<0+‘ >K<C+ 10?’‘ ?‘ BP A1% + C‘ +.><+B>0+‘ 1’‘ ’1.G<‘ @<D‘ %10=‘ ? 0C>‘ <% >0<+>D‘ +@<+‘ J %E‘ <0D‘ .>?+%>??‘ A1% + C <0!‘ <0D‘ .< ?>D‘ ?#?A C 10?‘ 0‘ @ ?‘ B 0D‘ 1’‘ @<.%>? ?‘ D>? =0?‘ <=< 0?+‘ @ ?‘ 1J0‘ D#C@E‘ 1’‘ %<0‘ @>‘ >BA>.1.‘ >%>C+!‘ <K B % <0!‘ J@1B‘ +@>‘ .>0C@‘ H 0=‘ +@1#=@+‘ +1‘ @<,>‘ $1#0D‘ +1

$‘ !? .,,‘ 8, ! ,4!,,! 3!66! 5 ‘ 5 ‘ % E,’) ‘ %3! : 5 0 C‘ J‘ :,%))) ‘ ! *,.,‘ 5,‘ 8, ‘ 5 ‘ *A%, ‘ E !‘ 3! ! %3 ,‘ ,4! FF,F! (! ,! ,,! J‘);

@ ?' 0+>.>?+?' $E' +@>' +.><+E' 1'' >0% ?!' +11H' #B$.<=>' <+'
@ ?' <??#BA+ 10' 1'' +@>' BA>. <%' + +%>' <0D' D =0 +E'
@>' A<0 ?@' <B$<??<D1.?!' <.C %<??1' D>' %<' >=<!'
<0D' @ ?' $.1+@>.!' 1.>0G1' #<.>G!' +@>' %<++>.' 1'' J@1B'
.>? D>D' <+' >0 C>!' J>.>' 0D>'<+ =<$%>' 0' ?+ B#%<+ 0='
+@>' ?A . +' 1'' D ?C10+>0+' =#>.1<!' 0' A<.+ C#%<.!'
#?>D' >,>.E'>''1.+'+1' ?>C#.>' +@>' 11A>.<+ 10' 1'' >0 C>!'
.>A.>?>0+ 0=' +1' +@>' =1,>.0B>0+!' 0' +@>' B1?+'#.=>0+'
+>..<?!' +@>' 0>C>?? +E' 1'' =>0>.<%' C10C>.+' <0D' 0?+<0+'
<C+ 10' <B10=' +@>' =.><+' A1J>.?' 1'' +<%E!' '' +@>E'
J1#%D' A.>?>.,>' +@> .' 1J0' % $>.+ >? T

>0 C>!' '.1B' +?' .>B1+>' A1? + 10!' ?>>B>D' +1' <''1.D'
+@>' $>?+' A1 0+' '1.' C11%%E' C10+>BA%<+ 0=' +@>' =>0>.<%'
0+>.>?+?' 1'' +<%E' 0,1E?' 1''+" >' D ''>.>0+' #.1A><0'
A1J>.?' J>.>' <??>B$%>D' +@>.>!' <?' ''$E' C1BB10' C10P
?>0+!' J +@' +@>' , >J' 1'' C10C>.+ 0=' ?1B>' ?C@>B>' 1''
1A>.<+ 10' '1.' +@> .' B#+#<%' =11D' @>' C10'>.>0C>?!'
J>.>' C10D#C+>D' $E' 0 =@+!' <0D' J +@' ?#C@' ?>C.>CE' <?'
+1' >%#D>' '1.' ?1B>' + B>' +@>' , = %<0+' >E>' 1'' 1B 0>?!'
+@>' ?<=<C 1#?' B 0 ?+>.' 1'' @<.%>?!' +@>0' .>? D>0+' <+'
+@>' C<A +<%' @>' .>?#%+' J<?' +@>' C>%>$.<+>D' %><=#>'
1'' >0 C>L' +' J<?' ? =0>D' +@>' %<?+' D<E' 1'' <.C@'
6:8!' 10' +@>' A<.+' 1'' A< 0!' #?+. <!' 1B>!' %<0!'
<0D' +@>' >0>+ <0' .>A#$% C' @>' 1?+>0? $%>' 1$">C+'
1'' +@>' +.><+E!' J@ C@' J<?' +1' %<?+' +J>0+EM' ,>' E><.?!'
J<?' +@>' A.>?>.,<+ 10' 1''+@>' >?+<+>?' <0D' . =@+?' 1''+@>'
C10'>D>.<+>?!' >?A>C <%%E!'A'' @>' 1B<0' ?>>' ' %<.=>

L' !? .,' 8, !' ,4!' ,,!' 3!'6 !' 3!' !' J'N$,%' 8, ' ,4!' ,,!'
J' :$,((,% 5,),' !' 5K % ,%' (!' ,,,!' .!' J' 1!'5' * 1,) '
1!' ,!' 33!' I ' I/!' J'T 14 ' ,4!' .,,' (!'F,F!
,%' E),G,%)%' ,4!' ,,!'0 1!',!

'1.C>!' <B1#0+ 0=' 0' <%%' +1' 6! ' @1.?>' <0D' 7 ! '
'11+!' J<?' +1' @>' <??>??>D' 0' ?+ A#%<+>D' A.1A1.+ 10?' 10'
><C@' 1'' +@>' C10+.<C+ 0=' A<.+ >?' @>' ?>C.>+' <.+ C%>?'
1'' +@>' +.><+E!' @1J>,>.!' J>0+' B#C@' '#.+@>.!' A.1, DP
0=' <' '1.B D<$%>' A%<0' 1'' 1''>0? ,>' 1A>.<+ 10?' +'
J<?' <=.>>D' 0' +@>?>!' +@<+' S 0=' >.D 0<0D' ?@1#%D'
>BA%1E'+@>' A<0 ?@' <.B<B>0+!' 01J'<.. ,>D' 0' C %E!'
0' .>>?+<$% ?@ 0=' @ ?' H 0?B<0' 10' +@>' +@.10>' 1'' <P
A%>?'L' +@<+' <' >0>+ <0' '%>>+' 1'' '1.+E' =<%%>E?' ?@1#%D'
<++<CH' +@>' .>0C@' A1?+ 10?' 10' +@>' ><A1% +<0' C1<?+?L'
+@<+' +@>' #H>' 1'' %<0' ?@1#%D' >KA>%' +@>' .>0C@'
'.1B' ?+ !' <0D' $%1CH<D>' +@>' A<??>?' 1''+@>' %A?!' ?1' <?'
+1' 0+>.C>A+' +@>' A<??<=>' 1'' '#.+@>.' .> 0'1.C>B>0+?L'
<0D' +@<+' +@>' >BA>.1.U<0D' +@>' S 0=' 1'' A< 0' ?@1#%D'
0,<D>' +@>' .>0C@' '.10+>.?!' <0D' +@> .' >KA>0?>?'
$>' D>'.<E>D' $E' ?#$? D >?' '.1B' +@>' <%% >? T' #C@'
J>.>' +@>' +>.B?' 1''+@ ?' +.><+E!' J@ C@' B<E' $>' .>=<.DP
>D' <?' '1.B 0=' <0' >.<' 0' B1D>.0' A1% + C<%' @ ?+1.E!'
? 0C>' +' >K@ $ +?' +@>' ' .?+' >K<BA%>' 1''+@1?>' >K+>0? ,>'
C1B$ 0<+ 10?' <B10=' #.1A><0' A. 0C>?' '1.' B#+#<%'
?>%'MD>'>0C>!' J@ C@' <'+>.J<.D?' $>C<B>' ?1' '.>F#>0+'
+' ?@<.>D' +@>' '<+>' 1'' B<0E' 1+@>.' C1<% + 10?!' J@>.>'
+@>' 0<B>' <0D' <#+@1.+E' 1'' +@>' J@1%>' @<,>' $>>0'
B<D>' ?#$?>., >0+' +1' +@>' 0+>.>?+?' 1'' ?1B>' 10>' 1''+@>'
A<.+>?!' B1.>' A1J>.'#%' 1.' B1.>' C#00 0=U' +@<0' +@>'
.>?+

@>' 0+>%% =>0C>' 1''+@>' 0>J'+.><+E' D ''#?>D' =>0>M

L' :$,((,% 5,),' ,%' 1!' 33!' T ' !' J' % $' 8, ' 5 '
,!' ,4!' ,,!' 3!' I I ! J' 1 , ' 5 ' E), ' 1!' ,,,!' 33!' 66' 6 !'
* 1,) ' ,4!' .,,!' (! FF! J)' J N$, % ' ,4!' ,,!' (! .!'
4 ' !' E,),G!' 1!' ,!' ,4!' ,,!

E !' !' ' *

.<% "1E +@.1#=@1# +<%E 0 >0 C>! 0 A<.+ C#%<.!
+ J<? =.>>+>D J +@ ' ' +>?! %%#B 0<+ 10?! <0D +@>
B1?+ >BA@<+ C A#$% C .>"1 C 0=! 0 +@>, .E >E>? 1'
+@> .>0C@ B 0 ?+>.! J@1 J<? C1BA>%%>D +1 J +0>??
+@ ? #0>F# ,1C<% +>?+ B10E 1'' +@> D>+>?+<+ 10 0
J@ C@ @ ? C1#0+.EB>0 J>.> @>%D T @>+ D 0=? '>%%
@><, %E 10 +@> ><.? 1''+@> .>0C@ 0 <A%>? ' + D ?P
A>%%>D +@> D.><B 1'' D%> D ?? A<+ 10 0 J@ C@ +@>E
J>.> D ??1%,>D @>E '>%+ % ++%> C10C>.0! 0D>>D! 1 %
+@> ?C1.> 1'' +@> . +<% <0 >0>B >?! J@1B +@> . ><?E
, C+1. >? +<#=@+ +@>B +1 .>=<.D J +@ +@> ?<B> 0?1P
%>0+ C10+>BA+! +@<+ +@> A<%<D 0? 1'' .1B<0C> <.>
B<D> +1 '>>% '1. +@> #0H0 =@+%E .<$$%>! BE. <D? 1'!
J@1B +@>E C1#%D 1,>.+#.0 J +@ <? ?0=%> %<0C>
#+ +@>E '>%+ ?>. 1#? <%<.B <? +@>E $>@>%D +@> ?+1.B
1'' J<.> =<+@>. 0=> '.1B 1+@>.> F#<.+>.?!O '.1B A< 0
<0D >.B<0E! 0 D>' <0C> 1'' +@> +.><+ >? $E J@ C@
+@>E @<D @1A>D +1 ?>C#.> +@>B @<.%>? ?<J +@>
%>C>?? +E 1'' 0?+<0+ <C+ 10 J1 <%+>.0<+ ,>? A.>P
?>0+>D +@>B ?>%,>?! > +@>. +1 ?+.>0=+@>0 @ B?>%'' 0
@ ? 0>J C10F#>?+?! <0D A.>A<.> +1 B< 0+< 0 +@>B
#0+ % @> C1#%D .>C> ,> '.>?@ .>0'1.C>B>0+? '.1B

L 1! 5 * 1,) 3! H ! * 1,) %@ ' % (5, A,1 0 0 A, 3 3,(%(, C ,) 5 (,) '' A ( ) ' ,%,) (% , 5) % ' E),(%'%,) A, 1% ! ((5,) '' 14 A B . A %00%, B% K 1%); %' 5 B, A $(A 3 0 $)5 (%$; ,) % (%3 A,) ,($) , , B% 00,(,% C %)) $)(5 4C A 5 ' A,1 0 BA) A B% 1$(A % $)5 5 4C A ,) ; ,')(A% A B% 4,' 5 % @ A (% C 0 A)% BA %((13%), 5 A,1 A 1 A 3% ,($ % 0 BA% A 5 ' A%5 %,5 % A, ,5 % B ( )0$ 5 % A ,1 A% A A%5) 3 0 (C (13 A)5 5 , ,%(E,),G,%) % ,4! ,,! 33! I H< 5! I H!

@1B>!' 1.' +1' <$<0D10' +@>B' <%+1=>+@>.' <0D' .>+.><+' <C.1??' +@>' %A?' $>'1.>' +@>' <%% >?' C1#%D' B#?+>.' 0' ?#'P ' C >0+' ?+.>0=+@' +1' 1AA1?>' @ B ' +@' +@>' 0D ?C.>P + 10' C@<.<C+>. ?+ C' 1'' @ ?' J@1%>' >0+>.A. ?>!' @>' >BP $.<C>D' <' B DD%>' C1#.?>!' <0D' %1?+' +@>' <D,<0+<=>?' J@ C@' J1#%D' @<,>' .>?#%+>D' '.1B' +@>' >KC%#? ,>' <D1AP + 10' 1''> +@>.

A ' 3 ,)(,3%' ,'A ' 4C' BA,(A' B ' % ' ' 4 ' ' %5 5' A $'A' A ' 1%,)5 ' 0' A,'A, C' ,' A ' %') ' %))%, 'N1,%' BA ' %'B @'% A $'A'(13% %,. C' '@) B)'%4 %5' A%)' A ' 0' 1 ' 1 ' ( )' *% ,,%)' B, ' $ %,)' %' 3$ %,)' %' A 1 ' $) $ 3% 5' 4C' %)C' A ' ,)' A ' ' % ' $4 %) ,%' 2$%,; , ' 0'%)' A, ,%)!' A ') ,(' 0' A,' ,0 ' %)5' B , ,)' 'A% ' 4)' B 5' ,) ' %' 4$ @C' 2$% '4C' !' , ' ' 1 ' ,)' %' B @'); , 5' Z' ' ' 5 ' %' 8, ,%')' ' C) ' 5 ' %')![' N% %>' ' 2%' I < 0 1' BA,(A' ' B, ' F %('%' 0 B' 3% ,($ % ! :),1 'N$, %' 5 ( )5 5' 0 1' %)' %)(,)' %)5') 4 ' 0%1, C' B% '4 1' %' % %' %' (!' D' 6 !' 8 ' B% ' 1% ,($ % 5' % ' %)' % C' %' ',)' A '$),. , C' 0' (% %!' 8 ' AT ' 1%5 ' F % 5,;)% C' 3 0,(,)(C' $)5 ' A ' ,1 1 5,% ' ,) $(,)' 0' A ' %) 5' $) G' 5 ' : $G1%)' (1 1) C' (% 5' ' ,)(,%) !' 8 ' 4 (%1 ' 0%1, ,%' B, A' A ' %)(,) ' %)5' %' .% , C' 0' 1 5 1')'$ ' %)5' % %(5' 3% ,($ % ' %) ,)' 4C' A ' 3$, C' %)5' '%)(' 0' A, ' % ,), C!' 8, ' 3)%' 1 , ' %)5' A, ' 0% A K' ,)0 $)(' (1; 1)5 5' A,1 ')' %0 ' 2$, ,)'' A ' $),. , C' ' A ') ,(' 0' A ' 13 ' *A% ' E!' 8 ' B% ' ( ) $ 5' %)5' 13 C 5' ,)' %00%, ' 0' 3$4 ,(' ,13 %)(' %)5' $4 2$) C' %, 5' ' . %' 3 ' 0' A) $ ' % ,)'' A ') , ' ( )0,5)(' 3 5' ,)' ,, ' ,) ' , C' %)5' %4, , , ! 8, ' 1 ' A) $ %4 ' %33 ,) 1) ' A B; . ' B% ' A% ' 0')% ,)% ' A, , ' %3A !

' ('

)' 6D/' %)'%('3% 5' A'(>') %' 0' %') '3 .,5,)''
0 ' A' 00,(' 0')%,)%'(A),('IIB, A'%'0,F 5' %%C'BA '5$C'
,' A$5'4' ' (13, '%'0%, A0$'A, C' 0'A'1)%(AC'0 1'
%$A),(' $(!' A' %)' %)5' 1,))' 2$%,0,(%,)' 0'
N$,%' (11)55'A,1' 'A,'3 '%)5'A'B%'%, 5' ','4C'
A'$)%),1 $'( ))' 0'A' ', %$ ',)'A'0 B,)''C %'
6DI!' 1'A,',1'A'( ) (,), $C'5. 5'A,1 0' 'A'
F($,)' 0'A,' ' %' %@!' 8'., , 5' . C'3%' 0'A,' B)'
($) C'%'B '%' ,(,C'%)5' %C'0 'A'312+ ' 0'((,)''
1% ,%!' A'3$4,(' %(A,.'%)5' . C'%((,4' $('0'
,)0 1%,)'B '0 C'A B)' 3)' 'A,',) 3(,)'4C' 5'0'
A''.)1)<%)5'A' $) 5'0 1'A,', %C'3, ',1%''B,A'
%'%''%((1%,)' 0' %'!%)5' ,',)%'5($1)!' A'0, '
3 ,)'0'A,'%))% 'B%'3$4,A 5'%' %%' %',)' B'. $1 '
0,' 6!' A'B @'B%') '(13 5'$),')%C'B)C'
C%' % <%)5'A'B'%'. $1 'B '3,) 5'$)5 ',' T.)'
C'%' %%' %' 6I '%'0 B' 1)A')C'40 'A,'5%A!'
A,'5,,)'4,)'')' 0'A '$ 5',)'A'3)'A, C',',)'
%''0 ,'0,, C' F($ 5'B,A'5 $4'($1)')'A'3%'',)'
A'0%A,)' 0'1 ' 0'A'%)(,)'3%), A'A, ,%)!' A'BA '
B @'B%' 3$4,A 5'%'A' F3)' 0'A' % '%'40 ',)'
6I6'4C'A,')'%1)55'%)5' 1 BA%') %''5'0 1'A'1%;
)$(,3 '0'4C'A,'0%A!' $ B @'A%'0%)',) 'A') '
0' $33 ,)''A%') ' 5,,)' 0'N$,%K'))% '%33 % 5',' %0 '
A' ,')' 0' A,,3' 'BA'5, 5',)' 6H!' P: (A,(A'5 ' ,'
$)5' 5%1@,'4%)5',,,!'3!' I H!X

',)(,5)'B AC' 0') ' 1' 'A%.'4 @)'A'3%(0$'
) $' 0'N$,%K',0 'BA,(A'A' 1,)% 5'%' %%' %',)'A'
,F C> ,'AA'C%' 0'A,'%' ',)'A'1)% C' 0' %)%')'%(,%'
' BA,(A'A'A%5' , 5'5$,)''%' 13 %C' ,5)(',)'A'(,C'
' $3 ,))5'A'3$4,(%,)' 0'A,'))%!' 8,',(A'((,)'
0'4 @'%)5'1%)$(,3 'B ' 0' 'A'*% A$,%)'1)% C' 0'
$%' ,4 4$'0 1'%((,5)' ') ' ('A' ' % '3%'A%.'
)'' ,)('3 ,A 5!' 8,' 1%,)'B ',) 5',)A'( ).)'
BA 'A'5, 5'%)5'%' 1)$1)'4%,)''%'1 5 ',) (,3,)'
B%' (5'. 'A 1'4C'A,')!

A'4 '1)$1)' 0'N$,%'AB . ',A,'))% !' AC'
%@'$3'A'A, C' 0' %')'0 1', '0, ', '%0 'A' %4,(

( )2$ '%)5' ( ) ,)$ ', ' ' A '5 %A' 0' 5,)%)5' A ' *%A ,(!' A ' ,')' 0' A,' 3 ,)(' %' 3 ,)"' A ' %' ' ,) '%)5' ,13 %)(', ' F3%)5 5',) ' B '. $1 '0 ,'< 4 ,)"') >A, 5' 0' A 'BA ' B @!

A '1,)$) ' 0'N$ %K',). ,'%,)' A%' %,5' A,1' 3)' ' A '(A% ' ' 0'3 ,F, C' 3 (,% C',)' A ' % , '%)5' ',13 %)' 3 , 5 !' ' A $5' 4' 1 14 5' A B . ' A%' A,' B @' B%' ' 4' A' ' %')%,)%' 3 , C' 0'0%(' ,) ,)"' 'A,' B)' ($) C1)< 4$' BA,(A' 0 1' 5,00,($ C' 0' %((' ' %$ A) ,(' $ (' ($5') . '4 0 '4' 0$ C' FA,4, 5' ' A , ' ,) 3 (,)!' $' BA% . '4' A $'A' 0'A,' 5$)5%)(C' ,)' A, ' ' A ' $4 ; 2$)' 3% ' 0'A,')% %,. ', '1$ '4'%51, 5' A%' A' A%' $),; 0 1 C'%)5' 13A%,(% C' 5, (5' A '%) ,)' 0' A ' %5 ' ' A ' 3,(' 1 ' B AC' 0', 4 3%,)"') ' 3%,) ',)', $ %,)"' A '( ); , $,)%'%) ,2$, , ' 0' A '($) C' %)5' ,)' %(,)"' A ' ' %5$%' 0 1%,)K 0'A ' ,4 %'3 , C' ,) %5' 0'B% ,)"' A,')' A')' 1 ' $3 0,(,%' ' ,3' ,@' 1 ' 0' A ' '% $ $' (A),(' 0' A '3 , 5!

A ', ')' 3%), A' A, ,%)' ' B%C 5' 4C' 3% C' ' ,', $' 3 +$5,(' '4C' A '0 ,)"' 0')% ,)% , C' BA,(A' , ' '%3' ' . ; 0 B',)' A ' C%' 00$,)' 0' A ' *% , ,%)' (A),(! A, ' %$5%; 4 ' 13 %)(',)5 5' A%' 4 $'A')' A,1' A ' 4$@' 0' 1 ' A%)')' 0'A, '3% , ,(' ($) C1)! A ', '% 4 , C'%)5' (;) ',)' A, ' ,1% ' 0'A, ,(%' .,5)(' 2$% C' 1 . 5' 0 1' 1 , C')' A ')' A%)5'%)5' (5$, C')' A ' A <',)' A 'A,' BA ' 1%)) ', ' A%' 0'% 1%)' ( ). %)' B, A' 3$4 ,(' 4$,) ' %)5' 0 '0 1' A ' ('3 5%) C' BA,(A' ' 0)' (A% %(,G ' A ' 1)@, A' %))%, ! A ' ' % '3% ' 0' A, ' ,0 ' B%' 3% 5' ,15 ' A ' ,')' 0' *A% 'E' BA)' A ' 3, ,' 0' A ')% ,)' B%') ' C '4 @)' 4C'%4, % C'3 B ') '5 4% 5' 4C' A ' 1 %)(A C' $; 3 , ,)' BA,(A' 5')', '$)5 'A, ' $((< %)'%' ',)' BA,(A' A ' 1 1 C' 0'%)(,)' ,4 C' A%5') ' BA C' 0%5 5' %B%C' %)5' BA)',0' 1)' 5,5') '5% ' F3 ' %' A C' A $'A ' A C'%' % ' A $'A' B, A' %' 5 ' ' 0',)5 3)5)(' BA,(A' '%. ' %' 1% ($,) ' (A% %(' ' A ,' F3 ,)!)' A, ' %' B ' %' ,)' A ' ,4 %, C' 0'A, ' ,', $') ,1) 'A' 1%C' 4' (13% 5'0%. $ %4 C' B, A' A, ' (4 % 5' ($) C1%)' %,%)%' BA ' 5$(% 5',)' A ' (, '%)5' %'%' 3 , 5' BA)' A ')% ,)' B%' (A 5' ' 1%F,1' 0'5 3 , 1!

: E ‘ ‘ !

FA,4, ‘ 0 B‘ ' ,13 ‘ 0‘ A ‘ $)5‘ (, ,(, 1‘ %)5‘ 0 (,)‘ BA,(A‘ % ‘ ‘ 4 ‘ 0 $)5‘ ,)‘ A ‘ B , ,) ' ‘ 0‘A, ‘ %') ‘ ,. % ! ‘ A ‘ 5$(; ,) ‘ 0‘ C ‘ A B . ‘ A ‘ 1 ‘ 0% ,5, $ ‘ (,)‘ 0‘,)(,5) ‘ ,)‘ A ‘ A ‘ $3 , ‘ ' %(‘ 0‘)% % ,)‘ A%. ‘ ',.)‘ %‘ B,5 ‘ 0%1 ‘ ‘ A ‘ 0 1 ‘ BA ‘ B @ ‘ A%. ‘ 3% 5‘ ,) ‘ 1 ‘ 0‘ A ‘ ($,. % 5‘ %) '$%' ‘ 0‘ ,$ 3 ‘ BA, ‘ A ‘ 0‘N$, %‘ 1%,) ‘ % ‘ 0% ‘ % ‘ ‘ %1‘ %B% ‘ , ‘ ,15, $ 4 5‘ ,)‘ A ‘ .)%($ % !

:

5 ‘

‘ ‘O‘ ‘ ‘ ‘ MMM P
5 ‘ ‘ ‘ ‘ O ‘ ;5 P
‘ ‘ ‘

6:8!‘ 6:

& ‘ ‘ B =@+‘ @<,>‘ '1#0D‘ <$#0D<0+‘ 1CC#P
A<+ 10!‘ D#. 0=‘ @ ?‘ $. >'‘ .>? D>0C>‘ <+‘ <A%>?!‘ 0‘ A%<P
C 0=‘ +@>‘ H 0=D1B‘ 0‘ <‘ A.1A>.‘ A1?+#.>‘ 1'‘D>'>0C>!‘ <0D‘
0‘ C10C % <+ 0=‘ +@>‘ =11DMJ %%‘ 1'‘+@>‘ 0@<$ +<0+?!‘ J +@P
1#+‘ J@ C@‘ @>‘ C1#%D‘ ?C<.C>%E‘ @1A>‘ +1‘ B< 0+< 0‘ @ BP
?>%'‘A>. B<0>0+%E‘ 0‘ @ ?‘ C10F#>?+‘ 1‘ '<.‘ '.1B‘ +@ ?!‘
@1J>,>.!‘ @>‘ ?@1J>D‘ +@>‘ #+B1?+‘ <,>.? 10‘ +1‘ $#? 0>??!‘
J<?+ 0=‘ @ ?‘ @1#.?!‘ <?‘ @<?‘ $>>0‘ <%.><DE‘ 01+ C>D!‘ 0‘
+@>‘ B1?+‘ '. ,1%1#?‘ <B#?>B>0+?‘ >‘ +.><+>D‘ +@>‘
=.><+‘ '>#D<%‘ <. ?+1C.<CE‘ 1'‘ +@>‘ C1#0+.E‘ J +@‘ #++>.‘
0>=%>C+L‘ .>0D>. 0=‘ @ B?>%'‘ D '' C#%+‘ 1'‘ <CC>??!‘ <0D‘
%<, ?@ 0=‘ <%%‘ D =0 + >?‘ <0D‘ >B1%#B>0+?‘ J +@‘ A<.+ <%‘
NA.1D =<% +E‘ 10‘ @ ?‘ .>0C@‘ ?#$">C+?‘ ?‘ '1%%1J>.?‘
D ?=#?+>D‘ +@>‘ 0<+ 10‘ ?+ %%‘ '#.+@>.‘ $E‘ +@> .‘ 0?1%>0C>‘
<0D‘ #0$. D%>D‘ % C>0+ 1#?0>??‘ @>‘ A>1A%>‘ 0<+#.<%%E‘
C<%%>D‘ +1‘ B 0D‘ +@>‘ , .+#>?‘ 1'‘ +@>‘ >K %>D‘ >.D 0<0D!‘
J@1?>‘ +>BA>.<+>‘ .#%>‘ +@>E‘ C10+.<?+>D‘ J +@‘ +@>‘ .<?@

<0D .<A<C 1#? C10D#C+ 1 +@> . 0>J B<?+>.? >
?A . + 1 D ?C10+>0+ ?A.><D B1.> J D>%E! <? +@>
.>0C@ J>.> +11 +@ 0%E ?C<++>.>D +1 >0'1.C> ?#$P
1.D 0<+ 10 C1..>?A10D>0C> J<? 1A>0>D J +@
>.D 0<0D 0 C %E! <0D 0 < ?@1.+ + B> ?>,>P
.<% 1 +@> B1?+ C10? D>.<$%> C + >? 1 +@> H 0=D1B
1A>0%E <,1J>D +@> . <%%>= <0C> +1 +@> @1#?> 1
.<=10 T

0 +@> B><0 + B>! @<.%>? <0D @ ? 01$%>?! ?<+ <+>D
J +@ < % '> 1 0<C+ , +E <0D A%><?#.>! <0D '>>% 0=
+@<+ +@>E @<D <CC1BA% ?@>D +@> =.><+ 1$">C+ 1 +@>
>KA>D + 10! $>=<0 +1 %11H J +@ %10= 0= >E>? +1J<.D?
+@> . 1J0 C1#0+.E @> . BA<+ >0C> J<?C10,>.+>D
+1 <0K >+E 10 .>C> , 0= + D 0=? 1 +@> C1<% + 10 B#?P
+>. 0= 0 +@> 1.+%L @<.%>?! @1J>,>.! +11H C<.> +1
?>C#.> +1 @ B?>%" ?1B> 1 +@> ?A1 %? 1 , C+1.E! 0 <
B<00>. J@C@ J> @<,> ?>>0 A.<C+ ?>D! 10 < B#C@
=.><+>. ?C<%> 0D>>D! $E @ ? C1#0+.EB>0 0 1#. D<E
> 1%%>C+>D +@> ,<. 1#? J1.H? 1 <.+ J +@ J@C@
<A%>? J<? <D1.0>D! A.>C 1#? <0+ F#>?! ?C#%A+#.>D
B<.$%> <0D <%<$<?+>.! =<+>? 1 $.10G> C#. 1#?%E
J.1#=@+! <0D ?#C@ <.C@ +>C+#.<% 1.0<B>0+? <? J>.>
C<A<$%> 1 +.<0?A1.+<+ 10! &<0D C<#?>D +@>B +1 $>
>B$<.H>D 10 $1<.D @ ? '%>>+ '1. +@> ?1#+@ 1 .<0C>!
Q >0D><,1#. 0=!R ?<E? +@> C#.<+> 1 1? 5<%<C 1?!
+1 $# %D #A @ ? 1J0 .>01J0 10 +@> .# 0? 1 +@>
S 0=? 1 <A%>?! 1 =%1. 1#? B>B1.E R ? ,>??>%?

L 1! 5 ! 5 * 1,) (,,! J :,%,)) ,% *,., ,.! .,,! (! F.,,! J $1 1) 8, > 5, %3 , ,4! FF,F! (! ,,! ,% 5, %3 , 1! ,,,! ,4! .,!

‘ ‘ ‘ :

@1J>,>.!‘ D D‘ 01+‘ .><C@‘ +@> .‘ A%<C>‘ 1’‘ D>?+ 0<+ 10!‘ $> 0=‘ C<A+#.>D‘ $E‘ <‘ ?C<E<0‘ <0D‘ >01>?>‘ ‘%>>+‘ 1’’‘ 5 ?< T

@<.%>?‘ @<D‘ >0+ .>%E‘ ‘< %>D‘ 0‘ @ ?‘ <AA% C<+ 10‘ +1‘ 51A>‘ %>K<0D>.‘ ‘ ‘1.‘ <‘ .>C1=0 + 10‘ 1’‘@ ?‘ . =@+‘ +1‘ <A%>?!‘ $E‘ <‘ ‘1. B<%‘ <C+‘ 1’‘ 0 ,>?+ +#.> +‘ >‘ D>+>.P B 0>D!‘ @1J>,>.!‘ +1‘ =1‘ +@.1#=@‘ +@>‘ C>.>B10E‘ 1’‘ <‘ C1.10<+ 10L‘ <0D‘ 10‘ +@>‘ 7+@‘ 1’‘ <E‘ B<D>‘ @?T‘ A#$% C‘ >0+.<0C>‘ 0+1‘ +@>‘ C +E!‘ <..<E>D‘ 0‘ ?A%>0D D‘ .1$>?‘ 1’‘ ?C<.%>+‘ <0D‘ >. B 0>!‘ J +@‘ +@>‘ BA>. <% D <P D>B‘ 10‘ @ ?‘ @><D!‘ <‘ ?C>A+.>‘ 0‘ 10>‘ @<0D!‘ <0D‘ <‘ =%1$>!‘ +@>‘ ?EB$1% 1’‘ #0 ,>.?<% ?1,>.> =0+E!‘ 0‘ +@>‘ 1+@>.L‘ J@ %>‘ +@>‘ <D#%<+1.E‘ A1A#%<C>‘ ?<%#+>D‘ @ ?‘ .1E<% ><.‘ J +@‘ +@>‘ <#=#?+‘ + +%>‘ 1’‘ >BA>.1.‘ ‘ ‘+>.‘ +@>‘ C10C%#P ? 10‘ 1’‘ +@ ?‘ ‘<.C>!‘ @>‘ B<D>‘ A.>A<.<+ 10?‘ ‘1.‘ @ ?‘ 0P ?+<0+‘ D>A<.+#.>‘ ‘.1B‘ <A%>?‘ ‘ 0‘ +@>‘ 7 +@‘ 1’‘ <E‘ @>‘ ?>+‘ 1#+‘ 10‘ @ ?‘ @1B>J<.D‘ B<.C@!‘ <+‘ +@>‘ @><D‘ 1’‘ 10>‘ @<%’‘ 1’‘@ ?‘ <..<E!‘ <B1#0+ 0=‘ 0‘ <%%‘ +1‘ 01+‘ B1.>‘ +@<0‘ 0 0>‘ +@1#?<0D‘ ‘ =@+ 0=‘ B>0!‘ >KC%#? ,>‘ 1’‘C<BA‘ ‘1%%1J>.?‘ ‘ @>‘ 1+@>.‘ @<%’‘ J<?‘ %>‘+‘ ‘1.‘ +@>‘ D>‘>0C>‘ 1’‘@ ?‘ 0>J‘ C10F#>?+‘ ‘ @ ?‘ <..<0=>B>0+‘ J<?‘ @ =@%E‘ BA1% + C!‘ ? 0C>‘ @>‘ 0> +@>.‘ +11H‘ J +@‘ @ B‘ >01#=@‘ +1‘ C1,>.‘ @ ?‘ .>+.><+!‘ 01.‘ %>‘+‘ >01#=@‘ +1‘ ?>C#.>‘ +@>‘ A.>?>.,<+ 10‘ 1’‘ <A%>?‘/

‘L‘ %% 5 G‘8, ‘5‘ ‘ C ‘ *% ,(! ! (! (F ! J (F ,,,!

]‘ $1 1) ‘ 8, ! 5,‘ %; 3 ,‘ 1!‘ ,,,!‘ ,4!‘ .,!‘ (! ,,!

((5,)’‘ ‘ :,%))) ‘ ; ,% 5,‘ %3 ,‘ ,4! FF,F!‘ (! ,,!X

A ‘5,5‘ 4 %,)‘ A ‘,) . , $ ‘0 1‘ A ‘ 3 3 ‹ 4$‘ A, ‘ % 1) ‘ ,‘ ( ) %5,(5‘ 4C . % ‘ %)5‘ ( ); 0, 1 5‘ 4C)) ‘ 0‘ A ‘ %$ A ,; , ‘ ‘A%. ‘ ( ) $ 5!

?‘ %) 1 ‘ E, ‘ 5 ‘ 8)>

79+@' 1''+@>' B10+@ ' 0C>' B1.>' .>?+1.>D' +1' @ ?' 1J0' D1B 0 10?!' +@>' E1#0=' B10<.C@' <$<0D10>D' @ B?>%'' J +@1#+' .>?>.,>' +1' +@>'% C>0+ 1#?' A%><?#.>?' +1' J@ C@' @>' J<?' A<?? 10<+>%E' <DD C+>D!' '1.=>++ 0=' <% H>' @ ?' D.><B?' 1'' <B$ + 10!' <0D' +@>' $.<,>' C1BA<0 10?' 0' <..<?' J@1B' @>' @<D' D>?>.+>D' 0' +<%E ' @#?' >0D>D' +@ ?' B>B1.<$%>' >KA>D + 10!' J@ C@!' +@1#=@' C.1J0>D' J +@' C1BA%>+>' ?#CC>??!' J<?' <++>0D>D' J +@' 01' 1+@>.' A>.B<0>0+' .>?#%+' +1' +?' <#+@1.?' +@<0' +@<+' 1''1A>0 0=' +@>' J<E' +1' +@1?>' D ?<?+.1#?' J<.?' J@ C@' J<?+>D' +@>' .>?1#.C>?' 1''+@> .' C1#0+.E' '1.'<=.><+' A<.+' 1''+@>'? KP +>>0+@' C>0+#.E T

@<.%>?' '@<D' %>'+' <?' @ ?' , C>.1E' 0' <A%>?' %$>.+' D>' 1#.$10!' #H>' D>' 10+A>0?>.!' A. 0C>' 1'' +@>' $%11U' <' $.<,>' <0D'%1E<%' 01$%>B<0!' $#+' 1''?%>0D>.' B % +<.E' C<A<C +E!' <0D' ?1' '10D' 1''@ ?' $>D!' ?<E?' 1P B 0>?!' +@<+' @>' ?>%D1B'%>'+' +'$>'1.>'0110' @>' C1BP B<0D' 1'' +@>' '1.C>?' 0' <%<$.<' J<?' 0+.#?+>D' +1' 10?'D #$ =0E!' <' C1++ ?@' C<,<%>.' 1''+@>' @1#?>' 1'' +#<.+!' .< ?>D' $E' @<.%>?' +1' +@>' D =0 +E' 1'' .<0D' 10?+<$%>' 1'' .<0C>' >' J<?' ?1' B#C@' >?+>>B>D' '1.' @ ?' 01$%>' <0D' C@ ,<%.1#?' F#<% + >?!' +@<+' @>' J<?' ?+E%>D' $E' +@>' <00<% ?+?' 1''+@<+' D<E!' ?<E?' .<0+DB>!' ' 6 '

" ' ' 9 ? >' @<D' %<.=>' >KA>. >0C>' 0' B % +<.E' B<++>.?!' <0D' J<?' .>A#+>D' 10>' 1''+@>' $>?+' 1'' C>.?' 0' +@>' .>0C@' ?>., C>' >? D>?' +@>?>' A. 0P C A<%' C1BB<0D>.?!' +@>.>' J>.>' 1+@>.?' 1''?#$1.D 0<+>

L' 1 ,' ' 5 ' E,) $. ' 3 1%!' %)T%, ' 1!' ,!' 33!' %3!' , ' * ' 5 ' 1!' 1!' / J H! J>* 1,) ' ,.!' .,,,!' F,.!' 33!' ' ! J % %) ' ,>' (!' F! J F,,!' F.,,,!

.<0H‘ ?+<+ 10>D‘ <+‘ +@>‘ @><D‘ 1 ’‘ ?B<%%‘ D>+<C@ B >0+?‘ 10‘ D ’’>.>0+‘ A1 0+?‘ 1 ’‘ +@>‘ H 0=D1 B !‘ <0D‘ >?A>C <%%E‘ 0‘ +@>‘ ’1.+ ’ >D‘ C + >?‘ <%10=‘ +@>‘ C1<?+? T

C<.C>%E‘ @<D‘ @<.%>?‘ ‘ F# ++>D‘ <A%>?!‘ J@>.%‘ @ ?‘ . ,<%‘ >.D 0<0D!‘ J @1‘ @<D‘ <%.><DE‘ C1 B A%>+>D‘ @ ?‘ A.>A<.<+ 10?‘ 0‘ C %E!‘ B<D>‘ <‘ D>?C>0+‘ 10‘ +@>‘ ?1#+@M‘ ‘ >B‘ >K+.>B +E‘ 1 ’‘ <%<$. <‘ >‘ J<?‘ ?#AA1.+>D‘ 0‘ +@ ?‘ $E‘ +@>‘ A<0 ?@‘ %>, >?‘ #0D>.‘ +@>‘ DB .<%‘ >F#>?>0?!‘ ‘ <0D‘ 10?<%,1‘ 1 ’‘ 1.D1,<!‘ J @1‘ .><C@>D‘ C %E‘ 0‘ +@>‘ B 10+@‘ 1 ’‘ <E ‘ ?‘ +@>‘ %<++>.‘ 1 ’+@>?>‘ C1 B B<0D>.?‘ J<?‘ D>?+ 0>D‘ +1‘ <C+‘ <‘ B 1?+‘ C10?A C#1#?‘ A<.+‘ 0‘ +@>‘ +<% <0‘ <.?!‘ +‘ B<E‘ 01+‘ $>‘ <B ??‘ +1‘ = ,>‘ ?1 B>‘ <CP C1#0+‘ 1 ’‘ @ ?‘ ><.%E‘ % ’>

10G<%1‘ >.0<0D>G‘ D>‘ 1.D1,<!‘ 1.‘ =# %<.!‘ <?‘ @>‘ ?‘ ?1 B>+ B>?‘ ?+E%>D‘ ‘.1B‘ +@>‘ +>.. +1. <%‘ C1=01 B>0‘ <??# B>D‘ $E‘ @ ?‘ $.<0C@‘ 1 ’‘ +@>‘ ’<B %E!‘ J<?‘ $1.0‘ <+‘ 10+ %%<!‘ 68 ‘ ?‘ ’<+@>.‘ D >D‘ ><.%E!‘ %><, 0=‘ +J 1‘ ?10?!‘ %10?1‘ D>‘ =# %<.!‘ J @1?>‘ 0<B >‘ 1CC#.?‘ 0‘ ?1 B>‘ 1 ’‘ +@>‘ B 1?+‘ $. %% <0+‘ A<??<=>?‘ 1 ’‘ +@>‘ J<.‘ 1 ’‘ .<0<D<!‘ <0D‘ 10?<%,1!‘ +@.>>‘ E><.?‘ E1#0=>.‘ +@<0‘ @ ?‘ $.1+@>.‘ #. 0=‘ +@>‘ +.1#$%>D‘ .> =0?‘ 1 ’‘ /1@0‘ ‘ <0D‘ >0.E‘ !‘ +@>‘ C +E‘ 1 ’‘ 1.D1,<‘ J<?‘ D , D>D‘ $E‘ +@>‘ ’>#D?‘ 1 ’‘ +@>‘ . ,<%‘ ’<B % >?‘ 1 ’‘ <$.<‘ <0D‘ =# %<.L‘ <0D‘ +‘ ?‘ .>A1.+>D‘ +@<+‘ +@>‘ C + G>0?‘ 1 ’‘ +@>‘ %<++>.‘ ’<C+ 10!‘ <’+>.‘ +@>‘ %1??‘ 1 ’‘ +@> .‘ 0<+#.<%‘ %><D>.!‘ 1 0?<%,1?‘ ’<+@>.!‘ #?>D‘ +1‘ +>?+ ’E‘ +@> .‘ %1E<%+E‘ +1‘ @ ?‘ @1#?>‘ $E‘ $><. 0=‘ +@>‘ 0’<0+‘ C@ %D.>0‘ <%10=‘ J +@‘ +@>B‘ 0‘ +@> .‘ .>0C10M

L‘ A, ‘ 5 ‘ * 1,) ‘ ,.!‘ .,,,!‘ (!‘ ,!‘ > %) 1 ‘ E, ‘ 5 ‘ 8 1 1
$ ‘ 1!‘ ,,!‘ 3!‘ 6H!

@>‘ %10=‘ J<.‘ 1 ’‘ .<0<D<!‘ @1 J>,>.!‘ J<?‘ +@>‘ =.><+‘ ?C@11%‘ 0‘ J@ C@‘ @ ?‘ B % +<.E‘ D ?C A% 0>‘ J<?‘ A>.’>C+>D‘ >‘ D D‘ 01+!‘ +‘ ?‘ +.#>!‘ 1CC#AE‘ ?1‘ >B 0>0+‘ <‘ A1? + 10‘ 0‘ +@>?>‘ C<BA< =0?‘ <?‘ ?1B>‘ 1+@>.‘ C@ >’?‘ 1’‘ . A>.‘ E><.?‘ <0D‘ B1.>‘ >0%<.=>D‘ >KA>. >0C>L‘ $#+‘ 10‘ ,<. 1#?‘ 1CC<? 10?‘ @>‘ D ?A%<E>D‘ #0C1B B10‘ A.11’?‘ $1+@‘ 1’‘ <DP D.>??‘ <0D‘ ,<%1#.‘ >‘ A<.+ C#%<.%E‘ D ?+ 0=# ?@>D‘ @ BP ?>%’‘ <+‘ +@>‘ C<A+#.>‘ 1’‘ <"<.<!‘ %%1.<!‘ <0D‘ 10+>‘ . 1‘ T +‘ +@>‘ %<++>.‘ A%<C>‘ @>‘ @><D>D‘ +@>‘ ?C<% 0=‘ A<.+E!‘ <0D‘ J<?‘ +@>‘ ’ .?+‘ +1‘ B1#0+‘ +@>‘ J<%%?‘ 0‘ +@>‘ ’<C>‘ 1’‘ +@>‘ >0>BE‘ >‘ J>%%M0 =@‘ C%1?>D‘ @ ?‘ C<.>>.‘ 0‘ <‘ B DP 0 =@+‘ ?H .B ?@‘ $>’1.>‘ .<0<D<!‘ J@ C@‘ 1CC#..>D‘ <‘ ?@1.+‘ + B>‘ $>’1.>‘ +@>‘ >0D‘ 1’‘ +@>‘ J<.‘ 0‘ +@>‘ @><+‘ 1’‘ +@>‘ ?+.#==%>‘ @ ?‘ @1.?>‘ J<?‘ ?%< 0L‘ <0D‘ 10?<%,1!‘ #0<$%>‘ +1‘ >K+. C<+>‘ @ B?>%’‘ ’.1B‘ +@>‘ B1.<??‘ 0‘ J@ C@‘ @>‘ J<?‘ >0+<0=%>D!‘ J1#%D‘ @<,>‘ A>. ?@>D!‘ $#+‘ ’1.‘ <‘ ’< +@’#%‘ ?>.,<0+‘ 1’‘ +@>‘ ’<B %E!‘ J@1‘ B1#0+>D‘ @ B‘ 10‘ @ ?‘ 1J0‘ @1.?>!‘ $. >’%E‘ C1B B>0D 0=‘ +1‘ @ ?‘ B<?+>.‘ +@>‘ C<.>‘ 1’‘ @ ?‘ J ’>‘ <0D‘ C@ %D.>0‘ 10?<%,1‘ >?C<A>D!‘ $#+‘ @ ?‘ $.<,>‘ ’1%%1J>.‘ A< D‘ ’1.‘ @ ?‘ %1E<%+E‘ J +@‘ @ ?‘ % ’>‘ +‘ +@>‘ C10C%#? 10‘ 1’‘ +@>‘ J<.!‘ @>‘ J<?‘ ?>%>C+>D!‘ +1=>+@>.‘ J +@‘ >.D 0<0D ?M?>C.>+<.E‘ V<’.<!‘ 0‘ C10?>P F#>0C>‘ 1’‘ @ ?‘ A%<#? $%>‘ <DD.>??!‘ <0D‘ @ ?‘ ’<B % <. +E‘ J +@‘ +@>‘ .<$ C!‘ +1‘ C10D#C+‘ +@>‘ 0>=1+ <+ 10‘ J +@‘ +@>‘ 11. ?@‘ =1,>.0B>0+‘ >‘ J<?‘ ?>C.>+%E‘ 0+.1D#C>D‘ ’1.‘ +@ ?‘ A#.A1?>‘ $E‘ 0 =@+‘ 0+1‘ .<0<D<!‘ <0D‘ ’ 0<%%E‘ ?#CC>>D>D‘ 0‘ <..<0= 0=‘ +@>‘ +>.B?‘ 1’‘C<A +#%<+ 10‘ J +@‘ +@>‘ #0’1.+#0<+>‘ $D<%%<@!‘ <?‘ @<?‘ $>>0‘ <%.><DE‘ ?+<+>D

0, ‘ * 4 ‘ 1!‘ ,‘ 33!‘ / J‘ :) % .,‘ ,4!‘ ,!‘ 33!‘ 6‘ !‘ !‘ J‘ !‘ ? .,$ ‘ E, %‘ %’),‘ !

0 C10? D>.<+ 10 1 '@ ? ,<. 1#? ?>. , C>?! +@> A<0 ?@ ?1 ,>.> =0? =.<0+>D @ B <A>0? 10! <0D < <. =><0D>D >?+<+> 0 +@> C10F#>.>D +>. . +1.E T

'+>. +@> J<.! 10?<, 1 .>B< 0>D J +@ +@> C1#.+! <0D @ ? @ =@ .>A#+<+ 10 <0D $ <0+ >K+>. 1. B<D> @ B 10> 1 '+@> B 1?+ D ?+ 0=# ?@>D 1.0<B>0+? 1 '+@> .1E< C .C> ? B<00>.? D ?A<E>D < +@> .1B<0+ C =<<0+.E C@<.<C+>. ?+ C 1 '+@> <=>! 1 J@ C@ ?>, >.< 0?+<0C>? <.> .C1.D>D + B<E ?#'' C> +1 B>0+ 10 10> @> F#>>0 <CC1BA<0 >D @>. D<#=@+>. /1<00< 10 $1<.D +@> '>>+ J@ C@ J<? +1 $><. @>. +1 <0D>.?! +@> C1#0+.E 1 '@>. D>?+ 0>D @#?$<0D '+>. $ DD 0= <D ># +1 +@> 0'<0+<! ?<$>< .>+#.0>D 0 @>. $1<+ +1 +@> ?@1.>! $#+ +@> J<+>.? J>.> ?1 ?J1>0 +@<+ + J<? '1#0D D '' C#+ +1 B<H> =11D < '11+ 0= '1. @>. 10 +@> $><C@ ? +@> ?< 1.? J>.> A.>A<. 0= +1 D.<= +@> $<.H @ =@>. #A +@> ?+.<0D! 10?<, 1! J@1 J<? A.>?>0+! <0D D.>??>D! <? +@> <?+ % <0 @ ?+1. <0? <.> C<.>'# +1 0'1.B #?! 0 < . C@ ?# + 1 ' $.1C<D> <0D C. B?10 , >, >+! #0 J 0= +@<+ +@> A>.?10 1 '@ ? .1E< B ?+.>?? ?@1#D $> A.1'<0>D $E +@> +1#C@ 1 '?#C@ .#D> @<0D?! J<D>D 0+1 +@> J<+>.! <0D $1.> +@> F#>>0 0 @ ? <. B? +1 +@> ?@1.>! <B D +@> ?@1#+? <0D

Q ! % C , 3$ 0 3, > BA A C $) B% , , 1%5 3 %$1 3! F(! J ? .,$ E, % 3 %C %3% A , 4C) 1 %) :) % ., ,4! ,! 33! ! J) , 5 %A 0 A : %)%> *)5 8, 5 %4 1! 5,) B% ! : %. B , BA ,, (! F ,,!! J #$,) %)% 1! ,,! (%)) %B0$ C 3 %5 A 3 , .,; 33! 6 ! 0 1%)(,) ' A%. (1 1, ; ,%) A% ', .) (, ($ % ,) 5 A %1 !L %1) ' % 3 3$ % 4C A, ; A <. %<?! , ,2$ 5 1%)(0 :) % . 5 * 5 $ 5,)%)5 3!

A%<#D +?' 1'' +@>' ?A>C+<+1.?' @>' OC D>0+' B<E' '1.B' <' C1#0+>.A<.+' +1' +@>' J>%%MH01JO' <0>CD1+>' 1'' .' <%+>.' <%> =@ T

?<$>%%<?' %10=' <0D' 0+ B<+>' <CF#< 0+<0C>' J +@' 10?<%,1' >0<$%>D' @>.' +1' '1.B' <' C1..>C+' >?+ B<+>' 1'' @ ?' =.><+' +<%>0+?' @>0' +@>' +<% <0' >KA>D + 10' J<?' .>?1%,>D' 10!' ?@>' 0?+<0+%E' ' K>D' @>.' >E>?' 10' @ B' <?' +@>' B1?+' ?# +<$%>' A>.?10' +1' C10D#C+' +' @>' H0>J' +@<+' @>' A1??>??>D' +@>' F#<% + >?' >??>0+ <%' +1' ?#CC>??' 0' <' 0>J' <0D' D '% C#%+' >0+>.A. ?>!O C1#.<=>!' C10?+<0CE!' ? 0=#%<.' A.#D>0C>!' D>K+>. +E' 0' 0>=1+ <+ 10!' <0D' 0P >K@<#?+ $%>' '>.+ % +E' 1''.>?1#.C>' @>' <CC1.D 0=%E'.>P C1BB>0D>D'@ B' J +@1#+' @>? +<+ 10' +1' @>.' @#?$<0D!' <?' +@>' C1BB<0D>.' 1'' +@>' +<% <0' <.BE' >' <AP A.1,>D' @>.' C@1 C>!' <%+@1#=@' +' ?>>B?' +1' @<,>' C<#?>D' 01' % ++%>' ?#.A. ?>' <+' +@>' C1#.+!' J@ C@!' 01+J +@?+<0DP 0=' +@>' '<,1#.' 0' J@ C@' 10?<%,1' J<?' @>%D' $E' +@>' ?1,>.> =0?!' J<?' 01+' A.>A<.>D' +1' ?>>' @ B' <D,<0C>D' 1,>.' +@>' @><D?' 1'' ,>+>.<0?' 1'' ?1' B#C@' . A>.' E><.?' <0D' @ =@>.' B % +<.E' .>01JO' +@<0' @ B?>%'' @>' >,>0+' A.1,>D' +@>' ?<=<C +E' 1'' ?<$>%%< Z

@>' A<.+' 1'' +@>' ?F#<D.10' D>?+ 0>D' +1' C10,>E' +@>

L' !'? .,$ ' E,%' %'),':)' ' 0' %' $33,5' A '2$)' % .,' A' !O' *A),(% 5 ' '%4$)5%) C'0 1' A '1%'),0,; : %)' *%3,%)+' 5!' (%%5 ' ( )' B%5 4 ' 0'A, %B,0 ')% 8)% ' 6ID' (!FF,,,! %,% %) ,2$ '%' 5' %4 %) A ' F%13 ' 0'A,' '%; 3 %%) C' ' 1%@' A%':' A ' %) C' ((($ 5'5$,)'' A ' : %' 0, 'A%5'5) ' 1 ' F ($,)',)')%5,) ' B%' BA)' A '0, ' 0' A, '2$% 'A%)'A ' B)![? ; %) %' 0' A%5' ( ) $1 5' A ' .,$ ' E,%' :) %.,' ,4!' ,!' 33!' C%') ' B,A' A '' % '3% ' I ' I ! 0' A '2$)K'%33% '%)5' A ' T0? .,$ ' E,%' :) %.,' 3!' .%$%4 ' 00 (!' :) %. ')' D!J *A),(% 5 ' : %)' *%3,' %),)'' A '5, % '%'A,'(%; %)' (!FF,,,!

@>J =>0>.<% +1 C %E J<? B<D> .><DE '1. ?>< 0 +@> ?A. 0= 1'' 6:8   '+>. < +>BA>?+#1#? ,1E<=>! @> .><C@>D >?? 0<10 +@> 76+@ 1'' <E % > '1#0D +@<+ >.D 0<0D 1'' <A%>? @<D <%.><DE $>=#0 1A>.<+ 10? 0 <%<$. <! J@>.> @> @<D 1CC#A >D >== 1 J +@ +@> <?? ?+<0C> 1'' +@> DB .<% >F#>?>0?! J@1 .><C@>D C %E J +@ < A<.+ 1'' +@> <.B<B>0+ < ?@1.+ + B> A.>, 1#? +1 10?<%,1 ? <.. ,<% @> J@1%> >''>C+ ,> '1.C> 1'' +@> A<0 <.D? D D 01+ >KC>>D % %<0C>? <0D 8 '11+! $>? D>? +@1?> >BA%1E>D 0 +@> '%>>+! <B1#0+ 0= +1 <$1#+ 8 B1.> @> ' 0<0C>? 1'' A< 0 @<D $>>0 +11 C1A 1#?%E D.< 0>D 0 +@> %<+> 11. ?@ J<. +1 <#+@1. G> <0E >K+.<1.D 0<.E >KA>0P D +#.>! <0D >.DB<0D D>? =0>D +1 <?? ?+ @ ? H 0?B<0 .<+@>. J +@ @ ? 0<B> +@<0 J +@ <0E =.><+ <CC>?? 10 1''0#B$>.? 5.>A<.<+ 10?! @1J>,>.! J>.> =1 0= '1.P J<.D '1. .< ? 0= <DD + 10<% %>, >?! >?A>C <%%E <B10= +@> @<.DE A><?<0+.E 1'' +@> ?+#. <? <0D <% C <! 10 J@ C@ +@> J<. 1'' .<0<D< @<D '<%%>0 M%>?? @><, %E +@<0 10 +@> ?1#+@ T

Q N$, % 8, 5 8)%)5 ,4! ,,! (! .,,! FF,.! J #$,) %)% 3%) ! * 4 ! 1! ,! 3! ! J *A),(% 5 : %) *%3, %) $4, $3!

:, ., , ,) A, 4, ' %3AC 0 :) % . ,1% A 0 (% 6 0 %)5 A BA,(A % , ,) A, 8, C A %, , / ! A%. 0 B 5 N$, % % 3) ,) '' A 1 3 4%4 % 1) %)5 % ') ; % C 1 %(($ % ,) % A% % , A, B))% ,)! ,

%A 3 % @ % 13 ; ( )(, A 1%),0 5 ,)%((($ %; (, ( ) %5,(,) %)5 5, (; 3%)(, BA,(A 3 3 F A)% ; % ,. 0 A B ,) 4 A ,5 ,) . C A,) ' % ,) ' ,1% ! A 5,00,; ($ C , ' % C,)(% 5 4C A F 1 C .%'$ %33,(%,) 0 A 1 # ! & (13 A)5,) ' ,F 0 $ A %) $14 0 0 B .) % A (% 1,'A 4 !

0ʻ +@>ʻ 7 +@ʻ 1'ʻ <E!ʻ 10?<%,1ʻ D>ʻ 1.D1,<ʻ C.1??>Dʻ 1,>.ʻ +1ʻ >== 1ʻ 0ʻ <%<$. <!ʻ J@>.>ʻ <ʻ A%<0ʻ 1'ʻ 1A>.<P + 10ʻ J<?ʻ C10C>.+>Dʻ $>+J>>0ʻ @ Bʻ <0Dʻ +@>ʻ ><A1% +<0ʻ B10<.C@ʻ >'1.>ʻ 1A>0 0=ʻ +@>ʻ C<BA< =0!ʻ ?>,>.<%&ʻ ?+.10=ʻ A%<C>?ʻ 0ʻ +@>ʻA.1, 0C>!ʻ J@ C@ʻ 1J>Dʻ <%%>= <0C>ʻ +1ʻ +@>ʻ .<=10>?>ʻ '<B %E!ʻ J>.>ʻ A%<C>Dʻ 0ʻ +@>ʻ @<0D?ʻ 1'ʻ +@>ʻ A<0 ?@ʻ =>0>.<%!ʻ <?ʻ ?>C#. +Eʻ '1.ʻ +@>ʻ .> B$#.?>P B>0+ʻ 1'ʻ>KA>0?>?ʻ 0C#..>Dʻ $Eʻ @ ?ʻ =1,>.0B>0+ʻ 0ʻ +@>ʻ J<.ʻ ?ʻ 10?<%,1ʻ A%<C>Dʻ % ++%>ʻ .>% <0C>ʻ 10ʻ @ ?ʻ <%<P $. <0ʻ 1.ʻ C % <0ʻ .>C.# +?!ʻ @>ʻ J<?ʻ 1$% =>Dʻ +1ʻ D>+<C@ʻ <ʻ C10? D>.<$%>ʻ A<.+ʻ 1'ʻ @ ?ʻ A<0 ?@ʻ '1.C>?ʻ +1ʻ =<.. ?10ʻ +@>?>ʻ A%<C>? T

@>ʻ A.>?>0C>ʻ 1'ʻ +@> .ʻ B10<.C@ʻ .>, ,>Dʻ +@>ʻ D1.P B<0+ʻ %1E<%+Eʻ 1'ʻ@ ?ʻ <%<$. <0ʻ ?#$">C+?ʻ +@>Eʻ+@.10=>Dʻ +1ʻ @ ?ʻ ?+<0D<.D!ʻ + %%ʻ <+ʻ %>0=+@ʻ @>ʻ '1#0Dʻ @ B?>%'ʻ <+ʻ +@>ʻ @><Dʻ 1'ʻ ʻ B>0ʻ C@ >'%Eʻ C1BA1?>Dʻ 1'ʻ+@>ʻ .<Jʻ B % + <ʻ 1'ʻ +@>ʻ C1#0+.Eʻ >ʻ B<.C@>Dʻ <+ʻ 10C>ʻ J +@ʻ 10?<%,1ʻ 10ʻ +ʻ =<+@<!ʻ J@ C@ʻ 1A>0>Dʻ +?ʻ =<+>?ʻ J +@1#+ʻ .>? ?+<0C>ʻ >ʻ +@>0ʻ D .>C+>Dʻ @ ?ʻ C1#.?>ʻ +1J<.D?ʻ >B 0<.<!ʻ <ʻ A%<C>ʻ 1'ʻ ?1B>ʻ ?+.>0=+@ʻ <$1#+ʻ > =@+ʻ %><=#>?ʻ '.1Bʻ >== 1ʻ 0ʻ @ ?ʻ J<Eʻ@>ʻ C#+ʻ 0

Lʻ %,%)%ʻ8, ʻ5ʻ 3%0,%ʻ 0 , ʻ3%(ʻA%5ʻ4)ʻ ,)(ʻ3$ʻ 1!ʻ, ʻ ,4!ʻFF.,!ʻ (!ʻF! J N$, %ʻ ,) ʻA, ʻA%)5 ʻA ʻ A $5 ʻ 8, ʻ5ʻ8 1!ʻ ʻ*% ,(ʻ ,4!ʻ A 1<ʻ,0ʻA CʻB ʻ0',13 %)(ʻ ,,!ʻ (!ʻ .,,! A B . ʻA ʻB%ʻ0, ʻ ʻ( )0 ʻ

Aʻ ((3%,)ʻ 0ʻA ʻ3%(ʻ B, Aʻ A, ʻ B)ʻ' .)1) !Zʻ "',)'ʻ 4Cʻ :) % . ʻ F(, 5ʻ A ʻ3 3 Kʻ 5,)%)5ʻ % ʻ 4% (%ʻ % $ ʻ + % $ Cʻ% ʻ ʻA ʻ5 ,')ʻ 0ʻA ʻ A, ʻ %5 ʻ Yʻ B% ʻ$)B, ,)'ʻ ʻ 3%), Aʻ . ,') !ʻ)ʻ (A >ʻ ',. ʻ (%$ ʻ 0ʻ(13%,)ʻ ʻ%)Cʻ 2$)(ʻ 0ʻA, ʻ 1) %)(ʻA ʻ) $) ʻA ʻB% ʻ ' % Cʻ %ʻ *% , ,%)ʻ). Cʻ :% (, % ʻ5 ʻ %ʻ '%,) ʻ4Cʻ, ![ʻ C ʻ5 ʻ %; E '%ʻ . % ʻ ,) $(5ʻ ʻ5, (ʻ ')ʻ Cʻ===!ʻ (!ʻ .,,,!ʻ J ʻN$, %ʻ :) % . ʻ A% ʻST,)ʻ (% ʻ%)Cʻ,); 1!ʻ Eʻ ,4!ʻ,,!ʻ (!ʻ .,,,!

A >C>?' <' D>+<C@B>0+' 1'' .>0C@' 10' +?' B<.C@' +1' .>P
0'1.C>' +@>' =<.. ?10' +@>.>' >B 0<.<' B +<+>D' +@>'
>K<BA%>' 1'' +' =<+@<!' <0D!' .>C> , 0=' +@>' ><A1% +<0'
<.BE' J +@1#+' 1AA1? + 10!' #0'#.%>D' +@>' ?+<0D<.D' 1''
.<=10' 10' +?' J<%%?' @ %>' +@ ?' J<?' =1 0=' '1.J<.D!'
0+10 1' . .<<0 !' +@>' >0>+ <0' <DB .<%!' ?C1#.>D' +@>'
><?+>.0' C1<?+?' 1'' +@>' H 0=D1B' J +@' <' '%>>+' 1'' '1#.'
<0D' +J>0+E'=<%%>E?!' <0D' <++<CH 0=' +@>' ?+.10=' +1 J 0' 1''
101A1% !' 0' +@>' A1??>?? 10' 1'' +@>' .>0C@!' A#+' +@>'
=.><+>.' A<.+' 1''+@>' =<.. ?10' +1' +@>' ?J1.D

#$ =0E!' J@1' %<E' <+' +@ ?' + B>' J +@' <0' 0C10P
? D>.<$%>' $1DE' 1'' .>0C@' +.11A?' 0' +@>' ?1#+@' 1'' <P
%<$. <!' ?<J' +@>' 0>C>?? +E' 1'' ?1B>' , =1.1#?' B1,>P
B>0+' +1' C@>CH +@>' '#.+@>.' A.1=.>??' 1'' +@>' >0>BE'
>' D>+>.B 0>D' +1' C10C>0+.<+>' @ ?' '1.C>?!' ?C<++>.>D'
+@.1#=@' +@>' A.1, 0C>!' <0D' B<.C@' <=< 0?+' >.D 0<0D!'
0' +@>' @1A>' 1'' $. 0= 0=' @ B' +1' <' D>C ? ,>' <C+ 10'
1.' +@ ?' A#.A1?>!' 0' <DD + 10' +1' +@>' =<.. ?10?' D ?P
A>.?>D' <B10=' +@>' A. 0C A<%' +1 J 0?!' @>' ?#B B10>D' +1'
@ ?' < D' +@>' '1.C>?!' C10? ?+ 0=' A. 0C A<%%E' 1'' J ??'
0'<0+.E!' ?+<+ 10>D' 0' +@>' <? % C<+>' #0D>.' 5.>CE!' <'
$.<,>' E1#0=' C<,<% >.!' >?+>>B>D' 10>' 1'' +@>' $>?+'
1'' C>.?' 0' +@>' .>0C@' ?>., C>' '+>.' +@>' <.. ,<%' 1''
+@ ?' .> 0'1.C>B>0+!' < D>D' $E' +@>' %>, >?' 1''+@>' 0=>P
, 0' $<.10?!' #$ =0E!' J@1?>' >''>C+ ,>' ?+.>0=+@' 01J'
=.><+%E' ?#.A<??>D' +@<+' 1'' @ ?' <D,>.?<.E!' D .>C+>D' @ ?'
B<.C@' +1J<.D?' >B 0<.<T

W ? .,$ ' E,%' :) % .,' 33!' ! I6bbN$, %' ,4!',,!' (!' .,,,!
6 J /!' J' 5 1' 8, ' $,' J :$,((,% 5,),' ,% 5 %,%'
13 ' 33!' I J I6! J 14 ' ,4!',,!' 33!' I I!' H < 5!' D6! J'
,%' E,),G,%)%' ,4!' ,,,!' 33! *A),(%5 ' : %)' *%3, %) '*++,

>.D 0<0D! J@1' @<D' .>C> ,>D' 01' 0+ B<+ 10' 1''@ ?' <D,>.?<.E?"#0C+ 10' J +@' 5.>CE!' <0D' J@1' C10? D>.>D' @ B' B#C@' 0'>. 1.' +1' @ B?>%'' 0' 0#B$>.?!' 01' ?110>.' \@><.D' 1''@ ?' <AA.1<C@!' +@<0' @>' D>+>.B 0>D' +1' B<.C@' 1#+' <+' 10C>' $>'1.>' @>' C1#%D' .><C@' >B 0<.<!' <0D' = ,>' @ B' $<++%>' 10?<%,1' J<?' 1'' <' D ''>.>0+' 1A U' 0 10L' @ ?' 1JO' +.11A?' @<D' @<D' +11' % ++%>' >KA>. >0C>' O' J<.' J +@' +@>' .>0C@' <0D' J ??' ,>+>.<0?' +1' B<H>' @ B' J %% 0=' +1' . ?H' <%%' 10' +@>' C@<0C>?' 1'' <' ? 0=%>' $<++%>' @>' A<0 ?@' @><,EM<.B>D' C<,<%.E!' 0D>>D!' J>.>' <' B<+C@' '1.' <0E' O' #.1A>!' <0D' J>.>' >,>0' ?< D' +1j'?#.A<??' >,>.E' 1+@>.' 0' +@>' $><#+E' <0D' >KC>%P %>0C>' 1'' +@> .' <AA1 0+B>0+?!' <+' <' A>. 1D' J@>0' <.B?' J>.>' ' 0 ?@>D' +1' %#K#.E T' >' @<D' $#+' <' @<0D'#%' 1'' +@>?>!' @1J>,>.L' $E' '<.' +@>' =.><+>?+' A<.+' 1'' @ ?' C<P ,<%.E' C10? ?+ 0=' 1'' /' 1.' % =@+M<.B>D' +.11A?!' 1'' 0>?+ B<$%>' ?>., C>' 0' +@>' J %D' =#>. %%<' J<.'<.>' +1' J@ C@' +@>E' @<D' $>>0' <CC#?+1B>D' 0' .<0<D<!' $#+' 1$, 1#?%E' 0C<A<$%>' 1'' C1A 0=' J +@' +@>' .10' =>0D<.P B>. >' 1'' .<0C>' >' '>%+' ?1B>' D ?+.#?+!' +11!' 0' ! $. 0= 0=' @ ?' % ++%>' C1.A?' 1'' 0'<0+.E' J +@1#+' '#.+@>.' A.>A<.<+ 10!' <.B>D' <?' +@>E' J>.>' 10%E' J +@' ?@1.+' ?J1.D?' <0D' $#CH%>.?!' <0D' B#C@' .>D#C>D!' <?' @<?' $>>0' <%.><DE' ?+<+>D!' 0' 0#B$>.!' +1' >0C1#0+>.' +@>' '1.P B D<$%>' A@<%<0K' 1'' J ??' A H>?' ?' '1.' +@>' <%<P $. <0' %>, >?!' @>' D D' 01+&' A%<C>' +@>' %><?+' .>% <0C>' 10' +@>B' L' <+' <%%' >,>0+?!' @>' +@1#=@+' +' A.#D>0+' $>'1.>' C1 0 0=' +1' <C+ 10' +1' 1$+< 0' B1.>' <CC#.<+>' 0'1.B<M

L' ? .,$ ' E,%' :) % .,' ,4!' ,!' J' $' ' 8, ' 5 ' %' ,'$ ' 5 ' *%14 %C') 5!' 3!' 6I!

+ 10‘ +@<0‘ +@>E‘ 01J‘ A1??>??>D‘ 1’‘ +@>‘ <C+#<%‘ ?+.>0=+@‘ 1’‘+@>‘ >0>BE T

0‘ <%%‘ +@ ?!‘ @1J>,>.!‘ @>‘ J<?‘ 1,>..#%>D‘ $E‘ +@>‘ BP A<+ >0C>‘ 1’‘ >.D 0<0D‘ <0D‘ @ ?‘ ‘1%%1J>.?‘ @>‘ A. 0P C A<%‘ A<0 ?@‘ C<,<% >.?!‘ 0D>>D!‘ <?‘ J>%%‘ <?‘ +@>‘ +<% <0!‘ <B10=‘ J@1B‘ B<E‘ $>‘ ‘1#0D‘ 0<B>?‘ J@ C@‘ <’+>. J<.D?‘ .1?>‘ +1‘ @ =@‘ D ?+ 0C+ 10‘ 0‘ +@>?>‘ J<.?!‘ #.=>D‘ 10M‘ ?<%,1‘ +1‘ %<E‘ <? D>‘ @ ?‘ ?C.#A%>?‘ L‘ .>A.>?>0+ 0=‘ +@>‘ BP A1% CE‘ 1’‘ ?@1J 0=‘ <0E‘ D ?+.#?+‘ 1’‘+@> .‘ 1J0‘ ?+.>0=+@‘ <+‘ +@ ?‘ C. ? ?!‘ <0D‘ 1’‘ $<#%H 0=‘ +@>‘ <.D1#.‘ 1’‘ +@> .‘ ?1%D >.?!‘ 01J‘ @1+‘ ‘1.‘ <C+ 10‘ @>‘ A<0 ?@‘ C@ >’!‘ +@1#=@‘ ‘<.‘ ‘.1B‘ $> 0=‘ C10, 0C>D!‘ E >%D>D‘ +1‘ +@>?>‘ ><.0>?+‘ .>B10?+.<0C>?!‘ <0D‘ S 0=‘ >.D 0<0D‘ %>D‘ 1#+‘ @ ?‘ % ++%>‘ <.BE‘ J +@1#+‘ ‘#.+@>.‘ D>%<E‘ <=< 0?+‘ +@>‘ >0>BE

‘+>.‘ +.<,>.? 0=‘ <‘ C@< 0‘ 1’‘ @ %%?!‘ ?+.>+C@ 0=‘ 0‘ <0‘ ><?+>.%E‘ D .>C+ 10‘ ‘.1B‘ >B 0<.<!‘ <+‘ +@>‘ D ?+<0C>‘ 1’‘ <$1#+‘ +@.>>‘ B %>?‘ @>‘ <.. ,>D‘ $>‘1.>‘ <‘ ?B<%%‘ ?+.><B!‘ 10‘ +@>‘ A%< 0?‘ $>E10D‘ J@ C@‘ @>‘ D ?C>.0>D‘ +@>‘ .>0C@‘ <.BE‘ 0‘ .<A D‘ <D,<0C>‘ <=< 0?+‘ @ B‘ >‘ .>?1%,>D‘ +1‘ J< +‘ +?‘ <AA.1<C@‘ L‘ <0D!‘ +<H 0=‘ A1? +$0‘ 10‘ +@>‘ ?%1A>‘ 1’‘+@>‘ @ %%?‘ +1J<.D?‘ +@>‘ . ,>.!‘ @>‘ D.>J‘ #A‘ @ ?‘ @1.?>‘ 10‘ +@>‘ . =@+‘ J 0=!‘ <0D‘ @ ?‘ 0’<0+.E‘ 10‘ +@>‘ %>’+ ’

@>‘ .>0C@‘ =>0>.<%?!‘ #$ =0E‘ <0D‘ 5.>CE!‘ A#+P + 0=‘ +@>B?>%,>?‘ <+‘ +@>‘ @><D‘ 1’‘ +@> .‘ C<,<%.E‘ 10‘ +@>‘ %>’+!‘ C10? ?+ 0=‘ 1’‘<$1#+‘ 6 ‘ @><,EM<.B>D!‘ <0D‘ +J C>‘ <?‘ B<0E‘ % =@+!@1.?>!‘ D<?@>D‘ 0+1‘ +@>‘ J<+>.‘ J +@1#+

L‘ N$,%‘ 8, ‘5‘ 8)%)5 ‘ 7 !‘ 7 9 O @.10C‘ D>%‘ : %)‘ ,4!‘ ,,!‘ !‘ .,,!‘ J‘ ? .,$ ‘ E,%‘ <A+<0!‘ C‘ KK,’ O‘ I# 0+<0<!‘ :) % .,‘ $4,‘ $3 %! D<? D‘ ?A<+ 1%>?!‘ +1B’ ‘ AA‘ ‘ !‘ ? .,$ ‘ E,%‘ ,4!‘ ,!‘ 33! 77 O 779M

@>? +<+ 10 @> . = @+ J <? 1CC#A >D $E +@> $. ?+P % 0= A@<%<0K 1 J ?? ?A><. B>0 0 C%1?> <. . <EL $>@ 0D +@>?> J>. > +@> B % + < 1 +@> C1#0+. E @> A<0 ?@ ? ?#CC>>D>D 0 +@. 1 J 0= +@> .>0C@ =>0D<. B>. > 0+1 ?1B> D ?1. D>. $>'1. > + C1#%D '1. B <'+>. C. 1?? 0= +@> ?+. ><B L $#+ 01 ?110>. J <? +@ ? <CC1BA% ?@>D! +@<0 +@> A<0 <. D?! 0C<A<$%> 1 J +@P ?+<0D 0= +@> C@<. => 1 +@> . >0>B E! ?#DD>0%E J@>>%P >D <$1#+! <0D A. >C A +<+>%E . >+. ><+>D J +@ +@> 0+>0P + 10 1 <=< 0 . >+#. 0 0= 10 +@> . <??< %<0+?! <'+>. +@> '<?@ 10 1 +@> 11. ?@ +<C+ C? @> <%<$. <0 B % P + <! 01+ C1BA. >@>0D 0= +@ ? B<01>#, .>! 0+>. A. >+>D + 0+1 < D>'><+ @>E +@1#=@+ +@> $<++%> %1?+! <0D' ?> G>D J +@ < A<0 C! $. 1H> +@> . .<0H?! <0D '%>D +1 < B<0! $>'1. > +@> J ?? 0'<0+. E @<D + B > ?1 B#C@ <? +1 %1J>. +?% <0C>? <=< 0?+ +@>B

S 0= >. D 0<0D 0 , < 0 <++>BA+>D +1 . <%%E +@> D<?+<. D%E '#= + , >?L +@> .>0C@ C<, <%. E J <? ?110 #A10 +@>B! B<H 0= '. =@+'#% ?%<#=@+>. 0 +@> . <0H?M @> E1#0= B10<. C@! J@1?> ?A%>0D D <. B? <0D +1J>. P 0= A%#B>? B<D> @ B < C10?A C#1#? B<. H 0 +@> ' >%D! J <? >KA1?>D +1 B B 0>0+ A>. % > @<D $. 1H>. @ ? %<0C> 0 +@> $1DE 1 10> 1 +@> '1. >B1?+ 1 +@> .>0C@ C<, <% >. ?! J@>0 @ ? @1. ?> '>%% #0D>. @ B <0D! <? @ ? '>>+ J>. > 0+<0=%>D 0 +@> ?+ . .#A?! @> J1#%D 0>, +<$%E @<, > A>. ?@>D 0 +@> $#+ '1 +@> A. 1BA+ <?? ?+<0C> 1 < E1#0= 01$%>B<0 0<B>D /#<0 D> %+<, %%<! J@1 B1#0+>D @ ? B<?+>. 10 @ ? 1J0 @1. ?>! <0D C<%B%E <J< +>D +@> <AA. 1<C@ 1 +@> >0>BE! $E J@1B @> J<? B B>D <+>%E ?%< 0 0M

?+<0C>?' 1'' +@ ?' <''>C+ 0=' %1E<%+E' <0D' ?>%'MD>,1+ 10' 01+'
#0'.>F#>0+%E' 1CC#.' 0' +@>?>' J<.?!' +@.1J 0=' <' B>%<0P
C@1%E' =.<C>' 1,>.' +@>' D<.H>.' <0D' B1.>' '>.1C 1#?' '><P
+#.>?' 1''+@>' + B> T

10?<%,1' J<?' ?>>0' 0' +@>' +@ CH>?+' 1'' +@>' ' =@+!'
%10=' <'+>.' +@>' H 0=?' >?C<A>!' C@<.= 0=' +@>' >0>BE'
$. ?H%E' <+' +@>' @><D' 1'' @ ?' @<0D'#%' 1'' A<0 <.D?!!'01+'
0' +@>' @1A>' 1''.>+. >, 0=' +@>' D<E!' $#+' 1''C1,>. 0=' +@>'
'% =@+' 1'' +@>' A<0 CM?+.#CH' ><A1% +<0?' +' %>0=+@T'
@>' J<?' $1.0>' <%10=' $E' +@>' .#?@ 0=' + D>!' <0D' ?#CP
C>>D>D' 0' $. 0= 0=' 1''+@>' =.><+>.' A<.+' 1'' @ ?' C<,<%.E'
?<'>' +1' >B 0<.<

''+@>' .>0C@' @<D' '1%%1J>D' #A' +@>' $%1J!' +@>' =.><+P
>.' A<.+' 1''+@>' .1E<%' <.BE!' J +@' A.1$<$%E' S 0=' >.P
D 0<0D' <0D' 10?<%,1' <+' +?' @><D!' J1#%D' @<,>' '<%%>0'
0+1' +@> .' @<0D?'L' <0D' +@#?' 01+' 10%E' +@>' '<+>' 1'' +@>'
C<BA< =0!' $#+' 1'' <A%>?' +?>%'!' J1#%D' @<,>' $>>0' A>.P
B<0>0+%E' D>C D>D' $E' +@ ?' $<++%>' 1.+#0<+>%E!' +@>'
.>0C@' D D' 01+' #0D>.?+<0D' ?1' J>%%' @1J' +1' #?>' <',CP
+1.E' <?' +1' =< 0' +' @>E' B<D>' 01' <++>BA+' +1' A#.P
?#>' ' +@ ?' ?' BA#+>D' +1' +@>' %%0>??' 1'' +@> .' =>0>.<%!'

#$ =0E!' 1CC<? 10>D' $E' +@>' >K+.>B>' #0@><%+@ 0>??'
1''+@>' C% B<+>' >' J<?' +11' '>>$%>' +1' ? +' %10=' 10' @ ?'
@1.?>!' <0D' J<?' .>B1,>D' 0+1' <' % ++>.' <?' ?110' <?' +@>'
<C+ 10' J<?' D>C D>D' @<+>,>.' J<?' +@>' C<#?>!' +@>'
,C+1.?!' $E' +@ ?' 0<C+ 10!' ?#''>.>D' +@>' =1%D>0' '.# +?' 1''
,C+1.E' +1' >?C<A>' +@>B' >.D 0<0D' B<D>' @ ?' >?C<A>

Q' !? .,$ +' 8, !' $,' 13' 1!',,,!' ,4!' .,!' (!',,!J :$,((,%;
,4!' ,,,!' 33!' I J I6! J *A)!' 5,),' ,%' ,4!' ,,!' 3!' J'
5' : %)' *%3,%)' (!' FF,.!JR :%,4%C' * 13)5!' 8,' 5'
$11)' 8, ,%'5,' %3, 3% %' 1!',,!' ,4!F,F!' 3!' H !

10’ +@>’ ?<B>’ D<E’ 10’ $1<.D’ <’ ,>??>%’ J@ C@’ C10,>E>D’ @ B’ @<CH’ +1’ C %E’L’ <0D’ 10?<%,1!’ 10’ +@>’ ’1%%1J 0=’ B1.0 0=’ $>’1.>’ $.><H’ 1’’ D<E!’ >’’>C+>D’ @ ?’ .>+.><+’ <C.1??’ +@>’ B1#0+< 0?’ +1’ >== 1’ <+’ +@>’ @><D’ 1’’ ’1#.’ @#0D.>D’ A<0 ?@’ %<0C>?’ @#?’ +>.B 0<+>U’ +@>’ ’ .?+’ $<++%>’ 1’’ BA1.+<0C>’ 0’ J@ C@’ 10?<%,1’ 1’’ 1.D1,<’ @>%D’ <’ D ?+ 0=# ?@>D’ C1B B<0D!O +@>’ 10%E’ 10>’ J@ C@’ @>’ %1?+’ D#. 0=’ @ ?’ %10=’ <0D’ ’1.+#0<+>’ C<.>>.’ +?’ %1??!’ @1J>,>.!’ <++<C@>D’ 01’ D ?C.>D +’ +1’ @ B!’? 0C>’ +’ J<?’ >0+>.>D’ 0+1’ 0’ B<0 ’>?+’ 1AA1? + 10’ +1’ @ ?’ "#D=P B>0+’L’ 10’ +@>’ C10+.<.E!’ @ ?’ C10D#C+’ +@.1#=@1#+’ +@ ?&’ <’’< .’ +>0D>D’ =.><+%E’ +1’ >?+<$% ?@’ @ ?’ .>A#+<+ 10!’ $E’ ?@1J 0=’ @ B’ +1’ $>’ 01’ %>??’ A.#D>0+’ 0’ C1#0C %’ +@<0’ $1%D’ 0’ <C+ 10 T

S 0=’ >.D 0<0D!’ ’<.’ ’.1B’ $> 0=’ D ?@><.+>0>D’ $E’ +@ ?’ D>’><+!’ =< 0>D’ 0>J’ C10’ D>0C>’ ’.1B’ @ ?’ >KA>P . >0C>’1’’+@>’ ’<,1#.<$%>’ D ?A1? + 10?’ >K ?+ 0=’+1J<.D?’ @ B’ 0’ <%<$. <’ >%E 0=’ 10’ <’ ? B %<.’ ’>>% 0=’ 1’’ %1E<%+E’ 0’@ ?’ C<A +<%!’ @>’ D>+>.B 0>D’+1’@<G<.D’ <’ $1%D’ ?+.1H>’ ’1.’ +?’ .>C1,>.E!’ <0D’+@<+’ 0?+<0+%E!’ $>’1.>’ @ ?’ %<+>’ D ?C1B’ +#.>’ ?@1#%D’ @<,>’+ B>’+1’ 1A>.<+>’ 10’ +@>’ ?A . +?’1’’@ ?’ A<.+ ?<0?’ >’ <CC1.D 0=%E’>B$<.H>D’ <+’ >?? 0<!’ J +@’ <’ @<0D’#%’ 1’’+.11A?’ 10%E!’ 10’ $1<.D’ +@>’ ’%>>+’1’’+@>’ A<0 ?@’ <DB .<%!’ >F#>?>0?’ ’ +’ <B1#0+P >D’ 0’ <%%’ +1’ > =@+E’ ,>??>%?!’ B1?+’1’’+@>B’1’’ 0C10P ?D>.<$%>’ ? G>’ +@’ +@ ?’ <.B<B>0+!’ J@ C@!’ 01+M’ #+@?+<0D 0=’ +?’ ’1.B D<$%>’ ?@1J!’ C<.. >D’ % ++%>’ >’M

L’ :$,((,% 5,),’ f5K % ,%’ ((f C’ ($% ’5’ %’)’ ,4!’,f 3!’ ! J f’? .,$ ’8, ’ 1!’,!’ ,4!’,f (f .,,! ,4!’,,,!’ 3!’ I f’ J’ %)$G%’ 8, !

'>C+ ,>' '1.C>' '1.' %<0D&1A>.<+ 10?!' +@>' <D,>0+#.1#?' E1#0=' B10<.C@' <AA><.>D' 1'"' +@>' @<.$1#.' 1'" <A%>?' $>'1.>' +@>' >0D' 1'"/#0>

@<.%>?? , C>.1E!' +@>' #H>' 1'" 10+A>0? >.!' <+' +@<+' + B>' =<.. ?10>D' <A%>?' J +@' ' .>0C@' +.11A?' 0' +@>' <AA><.<0C>' 1'"+@>' A<0 ?@' 0<,E!' @>' B<.C@>D' 1#+' '1' A.>,>0+' >.D 0<0D ?' %<0D 0=!' %><, 0=' <' '>J' 10%E' 1'" @ ?' ?1%D >.?' +1' H>>A' +@>' C +E' 0' <J>' #+' @>' @<D' ?C<.C>%E' F# ++>D' +' $>'1.>' +@>' 0@<$ +<0+?!' J@1' @<D' J< +>D' J +@' BA<+ >0C>' +@>' 1AA1.+#0 +E' '1.' +@.1J 0=' 1'"+@>' E1H>!' ?1#0D>D' +@>' +1C? 0!' <0D' . ? 0=' +1' <.B?' +@.1#=@' >,>.E' A<.+' 1'" +@>' C +E!' <0D' B<?P ?<C. 0=' +@>' '>>$%>' .>B< 0?' 1'" +@>' =<.. ?10!' ?@#+' +@>' =<+>?' <=< 0?+' @ B L' J@ %>' >.D 0<0D!' J@1' @<D' ?#CP C>>D>D' 0' D.<J 0=' 1'"+@>' .>0C@' C1B B<0D>.' 0' <01+@>.' D .>C+ 10!' 01' ?110>.' A.>?>0+>D' @ B?>%'" $>'1.>' +@>' J<%%?!' +@<0' @>' J<?' .>C> ,>D' J +@' +.<0?A1.+?' 1'" "1E' $E' +@>' >0+@#? <?+ C' A>1A%> T

@>' .>0C@!' @1J>,>.!' <%+@1#=@' >KC%#D>D' '.1B' +@>' C +E!' $E' B<H 0=' <' C .C# +' >''>C+>D' <0' >0+.<0C>' 0+1' +@>' '1.+.>??>?' J@ C@' C1B B<0D>D' +' .1B' +@>?>' A1?+?!' 10+A>0? >.' ?1.>%E' <001E>D' +@>' +1J0!' B<H 0=' '.>P F#>0+' <++<CH?' 10' +!' D<E' <0D' 0 =@+!' <+' +@>' @><D' 1'"@ ?' =>0D<.B>. >!' #0+ %' +@>E' J>.>' <+' %>0=+@' C@>CH>D' 0' >,>.E' D .>C+ 10' $E' $<.. C<D>?!' J@ C@' +@>' C + G>0?' @<?+ %E' C10?+.#C+>D' J +@' J<==10?!' C<?H?' 1'" ?+10>?!' $<=?' 1'" ?<0D!' <0D' J@<+>,>.!' B1?+' .><D %E' C<B>' +1

Q' $1 1) ' 8, ' 5,' %3 ,' ,4!' ,,,!' 33!' I / ' I I! J E,) $. ' 1!' .,!' 3!' 6 H!' J :$,((,% 5,),' %3!' , ' * !5 ' 1!' 1!' ,%' ,4!' ,,!' 33!' ' D! J ' F,.!' 33' D' 6! !' ? .,$ ' 8, ' $,' 13 ,

@<0D’ +‘ +@>‘ ?<B>‘ + B>!‘ +@>‘ J 0D1J?!‘ $<%C10 >?!‘ <0D‘ @1#?>M+1A?‘ J>.>‘ C.1JD>D‘ J +@‘ C1B$<+<0+?!‘ J@1!‘ A1#.>D‘ D1J0‘ ?#C@‘ <‘ D><D%E‘?@1J>.’1’‘B ?? %>?‘ 10‘ +@>‘ @><D?‘ 1’‘ +@>‘ .>0C@‘ <?‘ ’0<%%E‘ C1BA>%%>D‘ +@>B’ +1‘ +<H>‘ ?@>%+>.’ 0‘ +@> .’D>’>0C>?’ 10+A>0? >.’ J<?‘01J‘ C%1?>%E‘ $>? >=>D!‘ + %%!‘ <+‘ %>0=+@‘ .>D#C>D‘ $E‘ ’<B 0>!‘ @>‘ J<?‘ C1BA>%%>D‘ +1‘ C<A +#%<+>’ >’1.>‘ +@>‘ +>.B‘A.>P ?C. $>D‘ ’1.’ @ ?‘ ?#..>0D>.’ @<D‘ <.. ,>D!‘ @1J>,>.!‘ @>‘ >’’>C+>D‘ @ ?‘ >?C<A>‘ <+‘ 0 =@+‘ $E‘ J<+>.’ +1‘ <%>.01!‘ <+‘ +@>‘ @><D‘ 1’‘ 78 ’ B>0’ @>‘ .>B< 0 0=‘ =<.. ?10!‘ J +@‘ +@>‘ ’1.+.>??>?!‘ ?#$B +>D‘ +1‘ +@>‘ , C+1. 1#?‘ >.P D 0<0D‘ 0‘ +@>‘ $>= 00 0=‘ 1’‘+@>‘ ’1%%1J 0=‘E><.L‘ <0D‘ +@#?!‘ $E‘ 10>‘ 1’‘ +@1?>‘ ?#DD>0‘ +#.0?‘ J@ C@‘ $>%10=‘+1‘ +@>‘ =<B>‘ 1’‘ J<.!‘+@>‘ >K %>D‘A. 0C>!‘ J@1?>‘ ’1.+#0>?‘ <’ ’>J’ J>>H?‘ ? 0C>‘ <AA><.>D‘ A>.’>C+%E‘ D>?A>.<+>!‘ J<?‘ <=< 0‘ >?+<$% ?@>D‘ 0‘ +@>‘A<%<C>‘1’‘@ ?‘ <0C>?+1.? T

10+A>0? >.’D D‘01+‘.>B< 0‘ %10=‘ 0‘ @ ?‘ 0>J‘ F#<.P +>.?’ >‘ ?<J’+@>‘ 0>C>?? +E‘1’‘ B B>D <+>‘ <C+ 10!‘ +1‘ C1#0+>.<C+‘ +@>‘ <%<.B 0=‘A.1=.>??‘1’‘+@>‘>0>BE’ >‘ F# ++>D‘ <%>.01‘ $>’1.>‘ +@>‘>0D‘1’‘J 0+>.!‘?+.>0=+@>0P 0=‘ @ ?‘ <.BE‘J +@‘ ?#C@‘ .> 0’1.C>B>0+?‘ <?‘ @>‘ C1#%D‘ C1%%>C+‘ ’.1B’>,>.E‘F#<.+>.’1’‘+@>‘C1#0+.E’ +@‘+@ ?‘ $1DE‘@>‘D .>C+>D‘ @ ?‘ C1#.?>‘ +1J<.D?‘ A#% <!‘ 0‘ +@>‘ 0+>0+ 10‘ 1’‘ $. 0= 0=‘ >.D 0<0D!‘ J@1’ @<D‘ <%.><DE‘ >?+<$% ?@>D‘ @ ?‘ @><DMF#<.+>.?‘ +@>.>!‘ +1‘ <‘ D>C ?,>‘ >0=<=>B>0+’ >.D 0<0D?‘ ’1.C>!‘ @1J>,>.!‘ J<?‘ ?1‘ ’<.’ 0’>. 1.’ +1‘ +@<+!‘1’‘@ ?‘ <0+<=10 ?+!‘ <?‘ +1‘ C1BA>%‘ @ 0<

Q‘ !‘? .,$ ‘8, !‘ ,4!‘,,,!‘ 33!‘ J /!J $11) ‘ 1!‘ .,!‘ II J H !‘ DJ H!J :$,((,> 33!‘6 ‘6 !‘ %5,),‘ !‘5K % !‘ ,4!,,!‘33!‘ D

+1' <C+' 10' +@>' D>'>0? ,>!' #0+ %' @>' @<D' $>>0' .> 0'1.C>D' $E' <' C10? D>.<$%>' $1DE' 1'' +.11A?' '.1B' >0 C>' @>' +J 1' <.B >?' J>.>' +@>0' ?1' >F#<%%E' B<+C@>D!' +@<+' 0> +@>.' C<.>D' +1' @<G<.D' <%%' 10' +@>' '<+>' 1'' <' $<++%>L' <0D' +@>' C<BA< =0' J<?+>D' <J<E' 0' %<0=# D' 1A>.<+ 10?' J@ C@' %>D' +1' 01' BA1.+<0+' .>?#%+

0' &+@>' B><0' + B>!' 10?<%,1' D>' 1.D1,<' J<?' ?%1J%E' ' =@+ 0=' @ ?' J<E' #A' +@.1#=@' ?1#+@>.0' <%<P $.<' @>' C@<.<C+>.' 1'' +@>' C1#0+.E!' .1#=@' <0D' B1#0+< 01#?!' % H>' +@>' %A#K<..<?!' <0D' +@ CH%E' ?+#DP D>D' J +@' '1.+ ' >D' A%<C>?!' >0<$%>D' @ B' +1' $. 0=' 0+1' A%<E' +@>' +<C+ C?' J@ C@' @>' @<D' %><.0+' 0' +@>' J<.' 1'' .<0<D<' >' B<D>' % ++%>' #?>' 1''@><,E%<.B>D'+.11A?!' .>%E 0=' 10' @ ?' ' <0D' ?+ %%' B1.>' 10' @ ?' '11+L' +<H 0=' C<.>!' @1J>,>.!' +1' <,1 D' <0E' D .>C+' >0C1#0+>.' J +@' +@>' D.><D>D' J ??' $<++<% 10?' >' B<D>' <B>0D?' '1.' A<#C +E' 1''0#B$>.?' <0D' J<0+' 1''.><%' ?+.>0=+@!' $E' .<A D +E' 1'' B1,>B>0+' <0D' +@>' J %E' +<C+ C?' 1'' 11.?@' J<.'<.>L' D<.+ 0=' 10' +@>' >0>BE' J@>.>' %><?+' >KA>C+P >D!' ?#.A.? 0=' @ ?' ?+.10=@1%D?' <+' D><D' 1''0 =@+!' >0P +<0=% 0=' @ B' 0' <B$#?C<D>?!' <0D' D>?1%<+ 0=' +@>' C1#0+.E' J +@' +@1?>' +>.. $%>' '1.<E?!' J@1?>' >''>C+?' @>' @<D' ?1' 1'+>0' J +0>??>D' 10' +@>' '<.',>=<?' 1'' .<0<D<' >' <D1A+>D' +@>' A1% CE' A.<C+ ?>D' $E' @ ?' B<?+>.!' >.P D 0<0D' +@>' <+@1% C!' 0' +@>' 11.?@' J<.!O U%>0>0+' +1' +@>' ?#$B ?? ,>' '1>!' $#+' J.><H 0=' +>.. $%>' ,>0=><0C>' 10' ?#C@' <?' .>? ?+>D T

L' 14 ' ,% E,),G,%)%' D>' %%>0>#,>!' A' O ?M' ,4!' ,,,!' 33!' / ' /D! J *A)!' B10D' ?+!' D>? >A#$' +<% M' 5 ': %) * %3, %) '(!FF.,! J? .,>' >00>?!' +1B' K ' A' 4 $!' E, %' ,4!' ,!' 3!' I J 1!

@>' .>OC@' J>.>' ?1.>%E' D ?C1OC>.+>D' $E' +@>?>' ..>=#%<.' 1A>.<+ 1O?!' ?1' #O% H>' <OE+@ O=' +1' J@ C@' +@>E' J>.>' <CC#?+1B>D' O' #.1A><O' J<.'<.>' @>E' J>.>' '#.+@>.' D ?@><.+>O>D' $E' +@>' C1O+ O#>D' %%O>??' 1'' #$ =OE!' <OD' $E' +@>' =.1J O=' D ?<''>C+ 1O' 1'' +@>' <%<$. <O?!' J@1' O' +@>' ?1#+@>.O' A.1, OC>?' C1OP + =#1#?' +1' C %E' J>.>' A<.+ C#%<.%E' J>%%M OC% O>D' +1' \ A<O

1O?<%,1!' <,< % O=' @ B?>%'' 1''+@>?>' ' ' >OD%E' D ?A1P ? + 1O?!' A#?@>D' '1.J<.D' @ ?' ?#CC>??>?!' C<..E O=' 1O>' ?+.1O=@1%D' <'+>.' <O1+@>.!' #O+ %' $E' +@>' >OD' 1'' +@>' E><.' @>' @<D' 1,>..#O' +@>' J@1%>' 1'' 1J>.' <%<$. <' ?' A.1=.>??' J1#%D' @<,>' $>>O' ?+ %%' B1.>' .<A D' $#+' '1.'+@>' ?>. 1#?' >B$<..<??B>O+?' @>' >KA>. >OC>D' '.1B' J<O+' 1''?#AA% >?' >' @<D' .>C> ,>D' ?1B>' .># '1.C>M .<>O+?' '.1B' C %E!' $#+' ,>.E' '>J' '.1B' A< O' L' J@ %>' +@>' $1<?+>D' <% C <O' %>, >?!' O?+><D' 1'' ' '+>>O' @#OP D.>D!' @<D' DJ OD%>D' +1' ?C<.C>%E' +@.>>' @#OD.>D' B>O!' J@1' <.. ,>D' O' +@>' B1?+' B ?>.<$%>' A% =@+!' D>?+ +#+>' O'' C%1+@ O=' <OD' B#O + 1O?' 1''>,>.E' H OD' >' J<?' C1BA>%%>D' +1' J><H>O' ?+ %%' '#.+@>.' @ ?' O<D>F#<+>' '1.C>' $E' =<.. ?1O O=' +@>' C1OF#>.>D' A%<C>?!' B1?+' 1'' J@ C@!' @1J>,>.!' @>' J<?' 1$% =>D' +1' %><,>' J +@1#+' <OE' D>'>OC>' <+' <%%' O' <DD + 1O' +1' +@ ?!' @>' J<?' ?1' D>?+ +#+>' '1'' +@>' O>C>??<.E' '#OD?' '1.' +@>' A<EB>O+' 1'' @ ?' +.11A?!' +@<+' @>' J<?' D>+< O>D' O><.%E' +J1' B1O+@?' <+' C<?+.1!' #O+ %' >$.#<.E' 6: !' J@>O' @>' .>C> ,>D' <' .>B ++<OC>' '.1B' A< O' '+>.' +@ ?!' @>' .>?#B>D' 1A>.<+ 1O?' J +@' ?#C@' , =1#.!' +@<+' $E' +@>

>0D 1 '+@> '1%%1J 0=? A. 0=@><@D .>D#C>D<%% AA>.
<%<$. <! JD+@ +@>>KC>A+ 10 1 '<?B<%% C1.0>.1 '+@>
A.1, 0C>! 0 J@ C@ #$ =0E?+ %% B< 0+< 0>D@ B P
?>%' +@ ?C. ? ?! @> J<? ?#B B10>D '.1B +@>
?C>0> 1 '@ ? C10F#>?+? +1 +@> ?#AA1.+ 1 '+@> S 0=
1 ' <A%>?! J@1 %<E >0C<BA>D $>'1.> +>%%<! < +1J0
0+.>0C@>D <B10= +@> A>00 0>?! 10 +@> JU>?+>.0
$1.D>.? 1 '+@> <? % C<+> T

@> C<BA< =0 1 '+@>A.>C>D 0=J 0+>.@<D+>.B P
0<+>D J +@1#+<0E D>C ? ,> .>?#%+?! +@> +J1 <.B >? 1 '
10+A>0? >. <0D S 0= >.D 0<0D @<, 0= C10+ 0#>D
0 ? =@+1 '><C@ 1+@>.! J +@1#+>,>.C1B 0=+1 <C+ 10
@>?>A.1+.<C+>D 1A>.<+ 10? J>.> '<+<% +1 +@> .>0C@
@> . '>J ?#AA% >? J>.> 0+>.C>A+>D $E +@> A><?<0P
+.E A '+@>C1#0+.EL +@> . J ?? <0D >.B<0 B>.C>P
0<. >? B#+ 0 >D <0D D>?>.+>D '.1B J<0+1 '<A<E L <0D
+@> ><A1% +<0? 0 +@> . ?>., C> J>0+1 ' ' 0 =.><+
0#B$>.?! D ?=#?+>D J +@ +@> 0?1%>0+<0D 1,>.$><. 0=
B<00>.? 1 '+@> . 0>J <%% >? @<.%>? ! 0 +@>
B><0 J@ %>! J<? J<?+ 0=@ ? @1#.? <0D @><%+@ 0 +@>
#?#<% .1#0D 1 'A.1'% =<+> A%><?#.>? .1B +@> B1P
B>0+1 '.>C.F?? 0=+@> %A? @> ?>>B>D +1 @<,> ?@#+
1#+ +<%E '.1B @ ? +@1#=@+? > J<? >F#<%%E 0?>0P
? $%> +1 +@> ?#AA% C<+ 10?!1 '+@> '>J +<% <0? <+ @ ?
C1#.+! <0D +@> .>B10?+.<0C>? 1 '@ ? .>0C@ 01$%>?!
B<0E 1 ' J@1B ! <%+@1#=@ 1AA1?>D +1 +@> ' .?+ >KA>P
D + 10! J1#%D J %% 0=%E @<,> #0D>.+<H>0 < ?>C10D

L N$, % 8, 5 8)%)5 ? .,$ E, % ,4 ,! 33! H
,4 ,,! (! F,! FF! J : $,((,% 5,), ! J *A)! 5 : %) *%3, %)
! 5K % ,% ,4 ,,! 3! D ! J (! == E! FF.,!

+1ʻ ?#AA1.ʻ +@>ʻ $.<,>ʻ C1B.<D>?ʻ J@1Bʻ +@>ʻ @>>D%>??ʻ E1#0=ʻ B10<.C@ʻ 01Jʻ <$<0D10>Dʻ +1ʻ +@> .ʻ '<+> T

+ʻ %>0=+@ʻ 10+A>0? >+!ʻ ' 0D 0=ʻ 01ʻ A.1?A>C+ʻ 1'ʻ .>% >'ʻ '.1Bʻ @1B>!ʻ <0Dʻ ?+.< +>0>Dʻ $Eʻ +@>ʻ J<0+ʻ 1'ʻ A.1, ? 10?!ʻ D>+>. B 0>Dʻ +1ʻ D.<Jʻ 1'ʻ '.1Bʻ +@>ʻ 0> =@P $1#.@11Dʻ 1'ʻ >0>,>0+1!ʻ J@>.>ʻ +@>ʻ +J1ʻ <. B >?ʻ %<Eʻ >0C<BA>D!ʻ <0Dʻ .>+.><ʻ +1ʻ +@>ʻ '.# +'#%ʻ A.1, 0C>ʻ 1'ʻ A#% <!ʻ J@1?>ʻ A. 0C A<%ʻ A%<C>?ʻ J>.>ʻ ?+ %%ʻ =<.. ?10>Dʻ $EM +@>ʻ .>0C@ʻ >ʻ $.1H>ʻ #Aʻ @ ?ʻ C<BAʻ ?>C.>+%Eʻ <+ʻ D><Dʻ 1'ʻ 0 =@+!ʻ <0Dʻ =< 0>Dʻ <ʻ D<E ?ʻ B<.C@ʻ 10ʻ @ ?ʻ >0>BEʻ $>'1.>ʻ +@>ʻ %<++>.ʻ $>=<0ʻ @ ?ʻ A#.?# +ʻ @ ?ʻ >.D 0<0Dʻ A#?@>Dʻ J +@ʻ ?#C@M , =1#.!ʻ @1J>,>.!ʻ +@<+ʻ @>ʻ 1,>.+11Hʻ +@>ʻ .>+.><+ 0=ʻ <.BEʻ <+ʻ +@>ʻ +1J0ʻ 1'ʻ +>%%<!ʻ <0Dʻ C1BA%>+>%Eʻ 0+>.C>A+>Dʻ +?ʻ '#.+@>.ʻ A.1P =.>??ʻ @ ?ʻ +1J0!ʻ J@ C@!ʻ <?ʻ @<?ʻ $>>0ʻ 01+ C>D!ʻ ?ʻ ? +#<+>Dʻ 10ʻ +@>ʻ J>?+>.0ʻ ?H .+?ʻ 1'ʻ+@>ʻ <? % C<+>!ʻ % >?ʻ 0ʻ <ʻ $.1<Dʻ ,<%%>Eʻ >0C1BA<??>Dʻ $Eʻ <ʻ %1'+Eʻ <BA@P +@><+.>ʻ 1'ʻ @ %%?!ʻ +@.1#=@ʻ J@ C@ʻ '%1J?ʻ <ʻ % ++%>ʻ . ,>.ʻ +. $#+<.Eʻ +1ʻ +@>ʻ '<0+1!ʻ J<+>. 0=ʻ +@>ʻ +1J0ʻ <0Dʻ +#.0P 0=ʻ ?>,>.<%ʻ B %%?ʻ J@ C@ʻ ?#AA%>Dʻ +ʻ J +@ʻ '%1#.ʻ +ʻ <

W :$,((,% 5,),ʻ !ʻ 5K % !ʻ ,4>ʻ ,,,!ʻ 33!ʻ D !ʻ 6/ʻ 6I! Jʻ 1!ʻ 5ʻ * 1,)ʻ ,.!ʻ >.5,,!ʻ (!M FF,,,!ʻ FF,.! J !ʻ % Cʻ 3$ʻ 3, % !ʻ 3!ʻ (FFF,,,!

$ʻ ʻ5, (,1,)% ʻ4 B)ʻ A ʻ (A% %(ʻ 0ʻ A ʻ : 1%)ʻ >ʻ RC, ʻ ʻ &) # +!& %)5ʻ A ʻ B, ʻ ,)ʻ A ʻ0 B,)'ʻ 1 !ʻ :ʻ ʻ %) 2$) ʻ ,)ʻ1 1ʻ 5ʻ4 %$($3 1, $F 0%, ʻ ') >ʻ % 1)ʻ3% %) ʻ ʻ5 4,)1 ,>ʻ $ʻ 1,)ʻ $ʻ ʻ% 1 ʻ2$ʻ ʻ0%) % ,)ʻ $, 4 1%,ʻ ,

,)ʻ ,)(%3%4 ʻ 5ʻ5, (,3 ,) !ʻ $ʻ( ) %, ʻ5 ʻ $, , ,>ʻ)ʻ %)ʻ 4T, %)(ʻ 3 $ʻ $ʻ (A 0 ʻ ʻ %)ʻ%1, ,T 3 $ʻ $ʻ (%1% %5 ![ʻ P8, ʻ 5ʻ %ʻ ,'$ʻ 5ʻ*%14 %Cʻ 1ʻ,!ʻ , ! ; ,1!ʻ 3!ʻ !X * 1,) ʻ ( )0,)Aʻ Aʻ5, ,)(,)ʻ B, Aʻ%ʻ A,'Aʻ ,; 4$ ʻ ʻ Aʻ C% Cʻ 0ʻ Aʻ B, ʻ BA,(Aʻ A%ʻ ( ) ,)$ 5ʻ A ,ʻ A ;) $ %4 ʻ (A% %(, ,(ʻ A ʻ 3)ʻ5%C!ʻ 1 , ʻ ,.!ʻ>.,,,!ʻ (! FF,!

'> J' B %>?' D ?+<0C>' J<?' +@>' ?+.10=' A%<C>' 1'' A<'
<0D D<!' =<B?10>DT' $E' +@>' .>0C@!' +@.1#=@' J@ C@'
10+A>0? >.' @1A>D' +1' .<@ 0+< 0' @ ?' C1B B#0 C<+ 10?'
J +@' +@>' '>.+ %>' .>= 10?' 1''+@>' 0+>. 1.

>.D 0<0D!' D>? .1#?' ''A1?? $%>' +1' $. 0=' +@>' J<.' +1'
<' C%1?>!' $E' +@>' C<A+#.>' 1''+@>' J@1%>' .>0C@' <. BE!'
A.>A<.>D' '1.' <' , =1.1#?' $%1CH<D>' >' D ?A1?>D' @ ?'
'1.C>?' ?1' <?' +1' 0+>.C>A+' ?#AA% >?' $E' C1B B<0D 0=' +@>'
<,>0#>?' +1' +@>' +1J0' 0' >,>.E' D .>C+ 10' >' ?110'
'1#0D!' @1J>,>.!' +@<+' @ ?' <. BE!' +@1#=@' C10? D>.<$%E'
?+.10=>.' +@<0' @ ?' . ,<%?!' J<?' 0C1BA>+>0+' +1' +@ ?'
J +@1#+' '#.+@>.' < D' >' <CC1.D 0=%E' .>?1%,>D' +1'
?#B B10' +1' @ ?' ?#AA1.+' 10?<%,1' D>' 1.D1,<!' +@>'
'<B>' 1'' J@1?>'>KA%1 +?' 01J' .>?1#0D>D'+@.1#=@' >,>.E'
A<.+' 1''+@>' H 0=D1B T

@>' A<0 ?@' =>0>.<%' .>C> ,>D' >.D 0<0D ?' ?#BP
B10?' J@ %>' >0C<BA>D' J +@' @ ?' <. BE' <+' <?+.1, %%<. !'
0' +@>' 01.+@' 1'' AA>.' <%<$. <' ''@>' C1BA% >D' J +@'
+!' @>' ?<J' @ B?>%'' 0' D<0=>.' 1'' %1? 0=' <%%' +@>' '.# +?'
1'' @ ?' %10=' C<BA< =0' 1'' , C+1. >?L' '1.' @ ?' <C+ ,>'
>0>BE' J1#%D' 01+' '< %' +1' A.1' +' $E' @ ?' <$?>0C>' +1' .>P
A< .' @ ?' %1??>?' ''@>' .>'#?>D' 1$>D >0C>!' @1J>,>.!' +'
B =@+' D>'><+' +@>' B1?+' '<,1#.<$%>' 1AA1.+#0 +E' J@ C@'
@<D' E>+' A.>?>0+>D' +?>%'' '1.' $. 0= 0=' +@>' J<.' +1' <'
C%1?>' >' .>?1%,>D!' +@>.>'1.>!' <+' 10C>' +1' F# +' +@>'
' >%D' 1''@ ?' +. #BA@?!' <0D' B<.C@' +1' S 0=' >.D 0<0D ?'
.>% >'' #+!' $>'1.>' @ ?' D>A<.+#.>!' @>' A.>A<.>D' +1

L' ? .,$ 'E,%' :) % .!' ,4!' ,!' !' E,),G!' ,4!' ,,,!' 3!' ID! J'
33!' I' H! J *A)!5 ' : %)' :$,((,% 5,),' !' 5K % !' ,4!' ,,+'
*%3, %)' (! FF.,,,!' J'#$,) %)%' 3!' 6I
E,5% ' 1!' ,!' 3!' ! J 14

?+. H>&?#C@‘ <‘ $%1 J‘ <?‘ ?@1#%D!‘ ’‘A1?? $%>!‘ 0C<A<C +<+>‘ !@ ?& >A>B E‘ ’1.‘ <0E‘ >’’>C+#<%‘ B 1,>B>0+‘ D#. 0=‘ @ ?‘ <$?>0C>

>‘ .>C> ,>D‘ 0+>%% =>0C>‘ +@<+‘ <‘ C10? D>.<$%>‘ 0#B P $>.‘ 1’‘ 0=>, 0‘ %1.D?!‘ B 1?+%E‘ 1’‘ +@>‘ A1J>.’#% @1#?>‘ 1’‘ <0‘ >,>. 01!‘ J +@‘ +@> .‘ ,<??<%?‘ <0D‘ <‘ .> 0’1.C>P B>0+‘ 1’‘ .>0C@‘ +.11A?!‘ J>.>‘ <??>B$%>D‘ <+‘ +@>‘ % ++%>‘ +1 J 0‘ 1’‘ < 01!‘ 10‘ +@>‘ 01.+@M J>?+>.0‘ $1.D>.?‘ 1’‘ AP A>.‘ <%<$. <!‘ J@>.>‘ +@>E‘ %<E‘ <J< + 0=‘ <‘ "#0C+ 10‘ J +@‘ #$ =0E‘ 10?<%,1‘ D>+>. B 0>D‘ +1‘ ?#.A. ?>‘ +@ ?‘ A%<C>!‘ <0D‘ C<A+#.>‘ +@>‘ . C@‘ ?A1 %?‘ J@ C@‘ +‘ C10P +< 0>D!‘ $>’1.>‘ @ ?‘ D>A<.+#.>‘ ?‘ .1<D‘ %<E‘ +@.1#=@‘ <‘ J %D‘ <0D‘ B 1#0+< 01#?‘ C1#0+.E‘ @>‘ A<??>?‘ J>.>‘ 1CC#A >D‘ $E‘ +@>‘ <%<$. <0‘ A><?<0+.E‘ 0‘ +@>‘ 0+>.>?+‘ 1’‘+@>‘ 0=>, 0‘ A<.+E‘ @>‘ A<0 ?@‘ =>0>.<%!‘ @1 J P >,>.!‘ ’1#0D‘ 01‘ D ’’ C#%+E‘ 0‘ ’1.C 0=‘ <‘ J<E‘ +@.1#=@‘ +@ ?‘ #0D ?C A% 0>D‘ .<$$%>!‘ <‘ %<.=>‘ $1DE‘ 1’‘ J@1B‘ @>‘ ?#..1#0D>D‘ <0D‘ C#+‘ +1‘ A >C>?!‘ <?‘ +@>E‘ %<E‘ 0‘ <B$#?@‘ ’1.‘ @ B‘ 0‘ +@>‘ ,<%%>E‘ 1’‘ #.<01‘ < 01!‘ J@1?>‘ $<?>‘ ?‘ J<?@>D‘ $E‘ +@>‘ J<+>.?‘ 1’‘ +@>‘ <1!‘ J<?‘ D>’>0D>D‘ $E‘ <‘ ?+.10=‘ C<?+%>‘ $# %+‘ 10‘ +@>‘ 1AA1? +>‘ ? D>‘ 1’‘ +@>‘ . ,>.!‘ <0D‘ C100>C+>D‘ $E‘ <‘ $. D=>‘ J +@‘ +@>‘ +1 J 0‘ %%‘ <AA.1<C@‘ +1‘ +@>‘ A%<C>‘ $E‘ +@>‘ @ =@‘ .1<D‘ J<?‘ C1BP B<0D>D‘ $E‘ +@ ?‘ ’1.+.>??‘ 10?<%,1‘ 1$, <+>D‘ +@ ?‘ D ’’ C#%+E!‘ @A J>,>.!‘ $E‘ <‘ C .C# +1#?‘ .1#+>‘ <C.1??‘ +@>‘ B1#0+< 0?‘ >‘ B<.C@>D‘ <%%‘ 0 =@+!‘ <0D!‘ ’1.D 0=‘ +@>‘ J<+>.?‘ 1’‘ +@>‘ <1‘ <$1#+‘ +J 1‘ B %>?‘ <$1,>‘ +@>‘ +1 J 0!‘ >0+>.>D‘ +‘ J +@‘ @ ?‘ % ++%>‘ <.BE‘ $>’1.>‘ $.><H‘ 1’‘ D<E!‘ @<, 0=‘ A.>, 1#?%E‘ D>+<C@>D‘ <‘ ?B<%%‘ C1.A?‘ +1‘ +<H>‘ A1??>?? 10‘ 1’‘ +@>‘ $. D=>‘ @>‘ 0@<$ +<0+?!‘ ?+<.+%>D

: E ‘ ‘ * E !

'.1B‘ +@> .‘ ?%#B$>.?‘ $E‘ +@>‘ #0>KA>C+>D‘ <AA><.<0C>‘1'‘ +@>‘ >0>BE‘ 0‘ +@> .‘ ?+.>>+?!‘ @<?+ %E‘ ?> G>D‘ +@> .‘ <+B?‘ <0D‘ B<D>‘ '1.‘ +@>‘ C<?+%>‘ 10‘ +@>‘ 1+@>.‘ ? D>‘ 1'‘ +@>‘ . ,>.‘ @>‘ A<??!‘ @1J>,>.!‘ J<?‘ 1CC#A >D‘ $E‘ +@>‘ A<P 0 <.D?!‘ <0D‘ +@>‘ ><A1% +<0?‘ <0D‘ .>0C@!‘ @>B B>D‘ 0‘ 10‘ >,>.E‘ ? D>!‘ $>=<0‘ <‘ D>?A>.<+>‘ .>? ?+<0C>‘ J@ C@‘ +>.B 0<+>D‘ J +@‘ +@>‘ D><+@‘ 1'‘ +@> .‘ C@ >'!‘ B>. C1‘ <0‘ >,>. 01!‘ <0D‘ +@>‘ C<A+#.>‘ 1'‘ ?#C@‘ 1'‘ @ ?‘ '1%P %1J>.?‘ <?‘ D D‘ 01+‘ '<%%‘ 0‘ +@>‘ ‘ ‘ . C@‘ $11+E‘ '>%%‘ 0+1‘+@>‘@<0D?‘1'‘+@>‘, C+1.?‘ @>‘B1?+‘=%1. 1#?‘ A. G>!‘ @1J>,>.!‘ J<?‘ +@>‘ 0=>, 0‘ $<.10?!‘ +J>0+E‘ 0‘ 0#B$>.!‘ J@1B‘ 10?<%,1‘ <'+>.‘ +@>‘ <C+ 10‘ ?>0+‘ A. P ?10>.?‘ +1‘ <A%>?‘ @ ?‘ D>C ? ,>‘ $%1J!‘ J@1?>‘+ D 0=?‘ ?A.><D‘ % H>‘ J %D' .>‘ +@.1#=@1#+‘ +@>‘ C1#0+.E!‘ ?>++%>D‘ +@>‘ '<+>‘1'‘ <%<$. <‘ +‘ ?+.#CH‘ +>..1.‘ 0+1‘+@>‘@><.+?‘ 1'‘+@>‘ .>0C@!‘ <0D‘ C. AA%>D‘ +@>B‘ ?1‘ '<.‘ <?‘ +1‘ %><,>‘ 10?<%,1‘ % ++%>‘ C<#?>‘ '1.‘ <0K >+E‘ D#. 0=‘ @ ?‘ A.1A1?>D‘ <$?>0C> T

@>‘ A<0 ?@‘ =>0>.<%‘ %1?+‘ 01‘ + B>‘ 0‘ A.>?? 0=‘ '1.P J<.D‘ 10‘ @ ?‘ B<.C@‘ +1J<.D?‘ +>%%<‘ >'1.>‘ F# ++ 0=‘ <%<$. <‘ @>‘ @<D‘ .>C> ,>D‘ <‘ .> 0'1.C>B>0+‘ 1'‘ ' ,>‘ @#0D.>D‘ ?1%D >.?‘ '.1B‘ A< 0L‘ <0D‘ @ ?‘ J@1%>‘ A<0 ?@‘ '1.C>?!‘ <CC1.D 0=‘+1‘ 1, 1!‘ <B1#0+>D‘+1‘ ‘ B>0‘ <+‘ <.B?!‘ 8 ‘ % =@+‘ C<,<%.E!‘ <0D‘ 7 ‘ '11+!‘ A CH>D‘ B>0!‘ <0D‘ J>%%‘ ?C@11%>D‘ 0‘ +@>‘ @<.DE‘ ?>., C>‘ T'‘ +@>‘ %<+>‘ C<BA< =0‘ '‘ %+@1#=@‘ <‘ =.><+‘ A<.+‘ 1'‘ @ ?‘ B<.C@‘ %<E

L‘ ? .,$ ‘E, %‘33!‘ H‘ !‘ ,%‘ ,4!‘ ,,,!‘ 33!‘ ‘ 6H! J‘ ! J *A),(% 5‘ : %)‘ *%3, %)‘ (!‘ % ,%)%‘ 8, ‘5‘ 3%)%‘ 1!‘ FF.,,! J N$, %‘ 1!‘ .!‘ ,4!‘ ,,!‘ (!‘ ,,!‘ ,4!‘FF.,!‘ (!‘F,,! FF.,! J #$,) %)%‘ E,5% ‘ 1!‘ ,!‘ 33‘ /‘ I! J :$,((,% 5,),‘ > ‘? .,$ ‘8, !‘ ,4!‘ ,.!‘ 3!‘ !‘

+@.1#=@ʻ <ʻ @1?+ %>ʻC1#0+.E!ʻ @>ʻ>0C1#0+>.>Dʻ% ++%>ʻ 1AA1P
? + 1Oʻ Lʻ '1.ʻ+@>ʻ +>..1.ʻ1'ʻ@ ?ʻ 0<B>!ʻ ?<E?ʻ +@>ʻJ . +>.ʻ%<?+ʻ
F#1+>D!&@<Dʻ >,>.EJ@>.>ʻ =10>ʻ $>'1.>ʻ @ Bʻ >ʻ <.P
. ,>Dʻ $>'1.>ʻ +>%%<ʻ <+ʻ +@>ʻ$>= 00 0=ʻ 1'ʻ /#%Eʻ @>ʻ
S 0=ʻ 1'ʻ <A%>?ʻ J<?ʻ 01ʻ ?110>.ʻ <D, ?>Dʻ 1'ʻ@ ?ʻ <AP
A.1<C@ʻ +@<0ʻ @>ʻ B<.C@>Dʻ 1#+ʻ 1'ʻ+@>ʻ C<BA!ʻ <++>0D>Dʻ
$Eʻ+@>ʻ >0>+ <0ʻ =>0>.<%!ʻ +@>ʻ <.F# ?ʻ 1'ʻ <0+#<!ʻ
<0Dʻ+@>ʻA<A<%ʻ%>=<+>!ʻ <>?<.ʻ 1.= <!ʻ +1ʻ .>C> ,>ʻ @ Bʻ
%%ʻ J>.>ʻ><=>.ʻ +1ʻ D1ʻ @101#.ʻ +1ʻ +@>ʻ B<0ʻ J@1ʻ @<Dʻ
<C@ >,>Dʻ ?#C@ʻ$. %% <0+ʻ >KA%1 +?ʻ Lʻ J@1!ʻ 0ʻ %>??ʻ +@<0ʻ <ʻ
E><.!ʻ @<Dʻ B<D>ʻ @ B?>%'ʻ B<?+>.ʻ1'ʻ+@>ʻ %<.=>.ʻA<.+ʻ1'ʻ
+@>ʻ H 0=D1Bʻ 1'ʻ <A%>?!ʻ <0Dʻ +@<+ʻ J +@ʻ +@>ʻ B1?+ʻ
% B +>Dʻ.>?1#.C>?!ʻ 0ʻ D>' <0C>ʻ1'ʻ+@>ʻ$.<,>?+ʻ<0Dʻ$>?+ʻ
D ?C A% 0>Dʻ?1%D >.Eʻ 0ʻ #.1A>ʻ +ʻ J<?ʻ+@>0!ʻ<CC1.DP
0=ʻ +1ʻ +@>ʻ A<0 ?@ʻ J. +>.?!ʻ +@<+ʻ @>ʻ J<?ʻ $Eʻ=>0>.<%ʻ
C10?>0+ʻ=.>>+>Dʻ J +@ʻ+@>ʻ+ +%>ʻ 1'ʻ +@>ʻ .><+ʻ <A+< 0ʻ Lʻ
$Eʻ J@C@ʻ @>ʻ ?ʻ B#C@ʻ B1.>ʻ '<B %<.%Eʻ H01J0ʻ 0ʻ
A<0 ?@!ʻ <0D!ʻ +ʻ B<Eʻ $>ʻ <DD>D!ʻ 0ʻ B1?+ʻ @ ?+1.Eʻ 1'ʻ
+@>ʻA>. 1D!ʻ +@<0ʻ$Eʻ@ ?ʻ1J0ʻ0<B>T

Qʻ #$,) %)%ʻ 3%,, !ʻ * 4!ʻ 5 %.)$%ʻ $%ʻ ,)ʻ?%,%!!('ʻ
1!ʻ,!ʻ 3!ʻ I!ʻ Jʻ? .,$ʻ E,%ʻ) 1,)%ʻ 5%7-% !! &ʻ E> 2ʻ
:)%.!ʻ ,4!ʻ,!ʻ3!ʻ ! "ʻ,ʻ: %)ʻ*%3,%) ʻ3ʻ,'>ʻ
Aʻ %')ʻA, ,%)ʻ ʻ),0,(%%ʻ( )ʻ2$ ʻ, ʻ%ʻ $>ʻ
1$(Aʻ $00 5ʻ4Cʻ Aʻ, .)ʻ 3 1%3 5 % 3% ʻ1 ,5ʻ
1%,1 ʻ,)ʻ BA,(Aʻ :$,((,% 5,),ʻ 3 ʻ ʻ3 (%ʻ., ,ʻ(Aʻ 44ʻ
) ,(ʻAʻ ,',)ʻ 0ʻAʻ(') ; 5,3 ,ʻ(Aʻ3 ʻ( )),1) ʻ$),;
1)ʻ 0ʻA ʻ: %ʻ*%3%,)ʻBA,(Aʻ . %ʻ ',ʻ0 ʻ( )0 1%ʻ ʻ
.)ʻA,ʻ $4 2$)ʻ3%) 'C,(3 3 $%ʻ 2$ ʻ 3%) 1ʻ
(%)) ʻ%)ʻ0 !ʻ Yʻ %ʻ (%3,>ʻ 3 ʻ,'),0,(%G,)ʻ5,'.., $'%)5ʻ
%)ʻ*)%.ʻ 1%)5 ʻ5,ʻ(% % ʻ5,'%)5ʻ (( )G%) %5, >ʻ
5K 'A,%ʻ5,ʻ3% ,%ʻ * 5. ʻ (,3,)%1, % !Lʻ P !ʻ5K %!ʻ
$ 1ʻ5,ʻ 1 ʻ.% ʻ 5ʻ >ʻ 1!ʻ,!ʻ3!ʻ !X ((5,)'ʻ ʻ
(,%ʻ$)'%1)ʻ) ʻ'$ ʻ5,ʻ N$,%ʻA ʻ, ʻB%ʻ) ʻ( );
: %)%%ʻ,ʻ2$% ʻ) ʻ3,)(,3, 0 5ʻ,ʻA ʻ3%), Aʻ ')%K

10?<%,1' '1#0D' +@>' .>0C@' ?1.>%E' D ?+.>??>D' $E' +@>' $%1CH<D>!' J@ C@' J<?' ?1' ?+. C+%E' B< 0+< 0>D' <?' +1' <%%1 J' '>J' ?#AA% >?' '.1B' <$.1<D' +1' A<??' 0+1' +@>' +1 J 0 ' ?' F# CH' >E>' D ?C1,>.>D' <+' 10C>!' @1 J>,>.!' +@<+' 0' 1.D>.' +1' .>0D>.' +' A>.'>C+%E' >''>C+#<%' +' J 1#%D' $>' 0>C>??<.E' +1' D>?+.1E' +@>' B %%?' 0' +@>' , C 0 +E' J@ C@' ?#AA% >D' +>%%<' J +@' '%1#.' >' #0D>.+11H' +@ ?' 10' +@>' D<E' 1'' @ ?' <.. ,<%' <+' +@>' @><D' 1'' @ ?' 1 J 0' C1.A?' 10+A>0? >.!' <J<.>' 1'' +@>' BA1.+<0C>' 1'' +@>?>' B %%?!' @<D' ?+<+ 10>D' <' ?+.10=' =#<.D' '1.' +@> .' D>'>0C>!' C10? ?+ 0=' 1'' <' $1DE' 1'' <?C10' <.C@>.?' <0D' +@>' J ??' A H>B>0 ' %+@1#=@' +@>T' A<0 <.D?' @<D' 0>,>.' $>>0' $.1#=@+' 0+1' D .>C+' C1%% ? 10' J +@' <0E' %<.=>' B<??>?' 1'' +@ ?' '1.B D<$%>' 0'<0+.E!' E>+' 1CC<P ? 10<%' .>0C10+.>?' J +@' ?B<%%' D>+<C@B>0+?!' <0D' 0P C.><?>D' '<B % <. +E' J +@' +?' +<C+ C?!' @<D' ?+. AA>D' +' 1'' B#C@' 1'' +?' +>..1.?' 10?<%,1' @<D' >,>0' ?1' '<.' A.1P ' +>D' $E' +@>' >K<B A%>' 1'' +@>' J ??!' <?' +1' ?+.>0=+@>0' @ ?' 0'<0+.E' $E' B 0=% 0=' +@>' %10=' A H>?' J +@' +@>' ?@1.+' ?J1.D?' <0D' $#CH%>.?' 1'' +@>' A<0 <.D? T

%33 % %)(' 4 0 ' %' %)5' A ' 0, ' F%13 ' 0', ' 0 1%' ('), ,)' B% ' ,)' A L',) $; 1)' 0' (%3, $ % ,)' %' A%' 3 %(! P8, ' 5 ' 8)%)5 ' ,4! ,,! (! FF.,,!X A, ' 1 ' ' 5 ; ,. ' I$33L ,,< 0 1' A ' 0%(' A%' :) % . K' 4, ' %3A ' %)5' ( ); 13 % C ' : , ., '4 ',) ' ' 5, ; ,) '$, A' A, 1' 4C' A%' 3, A ' 0 1' A, '3 , 5! 4% (%' A B; . ' ,0' A, ' %$ A) ,(, C' (%)' 4 ' , 5')' %4 , A ' %' A, 'A ' %) ,2$, C' 0 ' , ' .)' A%)' A% (%, 1 5' 4C' : $,((,% 5,),< ,)(' A ' 2$ ' %' 3% %' ' 0 1' A ' ' %) ' 1%5 ' 1 ' ,1 '%0 ' 4C' 5,)%)5' A ' *% A ,(' 0' A ' 5$@ 5 1' 0' % ' :) % . ' BA,(A' F3 C>) ,(' A ' , ' 0' : % ' *%3 %,)' % ' A%.,) '' 4)' 4 B 5' 4C' A ' % 1C')' A , ' (1 1%)5 ')' A, '0, ' 14% @; % ,)' % ' A ' A %5' 0' A ' % ,%)' % 1C! C '5 ' %'! C! FFF! (! ,F! 0' A, ' B% ' ,13 .,) '')' A ' 1 BA% ' _1, % ' F3 5,)'

>&' B<D>' +J 1' D , ? 10?' 1''@ ?' C<,<%.E!' A1?+ 0=' @ ?' @<0D'#%' 1''@><,E<. B>D' J +@' ?1B>' 1''+@>' % =@+' @1.?>!' ?1' <?' +1' C@>CH' <0E' ?<%%E' '.1B' +@>' +1J0!' J@ %>' @>' D>?+ 0>D' +@>' .>B< 0D>.' +1' ?#AA1.+' +@>' 0'<0+.E' 0' +@>' <++<CH' #A10' +@>' >0>BE' <, 0=' B<D>' +@>?>' <..<0=>B>0+?!' +@>' A<0 ?@' C@ >'+< 0' %>D' 10' @ ?' B>0' C10' D>0+%E' +1' +@>' C@<.=>' @>' <?C10' <.C@>.E!' @1J>,>.!' ?> G>D' J +@' <' A<0 C!' ?C<.C>%E' <J< +>D' @ ?' <AA.1<C@!' $#+' '%>D' ?@<B>'#%%E' $>'1.>' +@>E' @<D' + B>' +1' D ?C@<.=>' <' ?>C10D' ,1%%>E' 1''<..1J?!' %><, 0=' +@>' $<++%>' +1' +@>' J ??' @>?>' %<++>.!' >K@<#?+>D' $E' +@>' ?#''>. 0=?' 1'' +@>' ? >=>!' <0D' D ?A . +>D' $E' %10=' .>P ,>.?>?!' <0D' $E' +@>' A.>?>0C>' 1'' <' 0>J' <0D' , C+1. 1#?' '1>!' D D' #1+' $>@<,>' J +@' +@> .' J10+>D' 0+.>A D +E!' $#+' <'% .' <' '>>$%>' .>? ?+<0C>&<$<0D10>D' +@> .' A1? P + 10!' <0D' .>+.><+>D' +1J<.D?' +@>' C +E' 10?<%,1!' @<, 0=' =< 0>D' @ ?' 1$">C+!' D D' 01+' C<.>' +1' A#.?#>' +@>' '#= + ,>?!' $#+' 0?+<0+%E' ?>+' <$1#+' D>B1%?@ 0=' +@>' B %%?!' >,>.E' ,>?+ =>' 1'' J@ C@' 0' <' '>J' @1#.?' J<?' ?J>A+' '.1B' +@>' =.1#0D' @.>>' D<E?' <'+>.!' @>' ?#AP A1.+>D' +@>' ><A1%+<0' +.11A?' 0' <0' <??<#%+' 10' A<' <0D D<!' <0D' C<.. >D' +@<+!' BA1.+<0+' A1?+!' $E' B><0?' 1'' J@ C@' +>%%<' B< 0+< 0>D' <' C1B B#0 C<+ 10' J +@' +@>' 0+>. 1. T

@#?' C#+' 1''' '.1B' <%%' +@> .' .>?1#.C>?!' <0D' '%10=>.

% (,4 5' 4C' C4,$' ' "',)''' J E, %' :) % .,' 33!' ' !' C A$' BA' 1,)' 5' %)%' J' N$, %' 8, ' 5' 8)%)5 ' (A ' % 1 5' B, A' A ' B %; ,4!' ,,!' (! FF.,,! J' *A)!' 5 ' 3)' %0 ' A' 1%)' 0% A,)' !' *%3, %)' * ==.,,,! J' # 5)>' B, A' A ' 0' A, ' %(5),%)' %)%' 3%) ! * 4! 1! ,! 3 % 1)!' ,4! F.,,! (! FF,.! 3!' H! J 4% (%' C' FFF! (! $' ? .,$ ' 8, !' ,4!,.!' 3!' ! ,F!

C@>>.>D' $E' @1A>?' 1'' ?#CC1#.' '.1B' +@> .' 1J0' C1#0+.E!' +@>' .>0C@!' <'+>.' ?#''>. 0=' +@>' ?>,>.>?+' A. ,<+ 10?!' <0D' $> 0=' .>D#C>D' +1' +@>' B1?+' %1<+@?1B>' < B>0+' '1.' ?#$? ?+>0C>!' B<D>' 1,>.+#.>?' '1.'<' C<A +#%<+ 10 ' @>' +>.B?' J>.>' ?110' <..<0=>D' J +@' +@>' S 0=' 1'' <A%>?!' J@1' @<D' 01' D>? .>' $#+' +1' . D' @ ?' C1#0+.E' 1''+@>' 0,<P D>.?' +' J<?' <=.>>D!' +@<+' ''+@>' .>0C@' C1B B<0D>.' D D' 01+' .>C> ,>' <?? ?+<0C>' 0' +@ .+E' D<E?!' @>' ?@1#%D' >,<C#<+>' +>%%<!' <0D' C<#?>' >,>.E' A%<C>' @1%D 0=' #0P D>.' @ B' 0' +@>' H 0=D1B' 1'' <A%>?!' J +@' <%%' +?' <.+ %P %>.E!' +1' $>' ?#..>0D>.>D' +1' S 0=' >.D 0<0DL' <0D' +@<+' 10' +@>?>' C10D + 10?' @ ?' ?1%D >.?' ?@1#%D' $>' '#.0 ?@>D' J +@' ,>??>%?' +1' +.<0?A1.+' +@>B' $<CH' +1' .<0C>L' +@<+' +@>' '1.> =0' B>.C>0<. >?' ?@1#%D' $>' A>.P B ++>D' +1' .>+#.0' +1' +@> .' 1J0' @1B>?L' <0D' +@<+' <' =>0>.<%' <B0>?+E' ?@1#%D' $>' >K+>0D>D' +1' ?#C@' ><P A1% +<0?' <?' .>+#.0>D' +1' +@> .' <%%>= <0C>' 0' ' '+>>0' D<E? T

#C@' J>.>' +@>' <.+ C%>?' 1'' C<A +#%<+ 10!' ? =0>D' 10' +@>' 7 ?+' 1''/#%E' 6: !' J@ C@' 1B 0>?!' J@1' .>C> ,>D' +@>' + D 0=?' <+' +@>' C1#.+' 1'' .<0C>!' D1>?' 01+' @>? +<+>' +1' D>01#0C>' <?' Q' <' B1?+' D ?=.<C>'#%' +.><+E!' J +@1#+' A<.<%%>%!' ?<,>' 0' +@<+' B<D>' $E' +@>' 1B<0' C10?#%?' <+' +@>' <#D 0>' 1.H?!' J@ C@' J<?' +11' D ?@101#.<$%>' +1' $>' ?<0C+ 10>D' $E' +@> .' C1#0+.EB>0 R' @>' .>A.1<C@' ?' C>.+< 0%E' #0B>. +>D!' <0D' C1 A>?' J +@' %%' =.<C>' '.1B' <' C1#.+' J@ C@' J<?' J<?+ 0=' 0' . 1+1#?' 0D#%P =>0C>' +@>' ,>.E' .>?1#.C>?' 0D ?A>0?<$%>' +1' +@>' $.<,>

$ 1!' 5 ' E,) $. ' 3!' I!' J ' 1!' 5 ' * 1,) ' ,.!' .,,,!' (!' FF,!' J ' !' ? .,$ ' 8, !' 3!' !

<0D‘ %1E<%‘ ?#$">C+?‘ J@1‘ J>.>‘ >0D><,1#. 0=‘ +1‘ B< 0P
+< 0‘ +?‘ @101#.‘ 0‘ <‘ '1.> =0‘ %<0D T

0'1.+#0<+>%E‘ 10+A>0? >.‘ J<?‘ #0<$%>‘ +1‘ >0'1.C>‘
+@>‘ '#%%‘ A>.'1.B<0C>‘ 1'‘@ ?‘ 1J0‘ +.><+E‘L‘ <?‘ B<0E‘1'‘
+@>‘ .>0C@‘ .>'#?>D‘ +1‘ D>% ,>.‘ #A‘ +@>‘ A%<C>?‘ 0+.#?+>D‘
+1‘+@>B!‘ #0D>.‘+@>‘A.>+>0C>‘+@<+‘+@> .‘<#+@1. +E‘ J<?‘
D>. ,>D!‘ 01+‘ '.1B‘ +@>‘ , C>.1E!‘ $#+‘ ' 1B‘ +@>‘ H 0=‘
@ B?>%'‘ #. 0=‘ +@>‘ D ?C#?? 10‘ 1'‘ +@ ?‘ A1 0+!‘ +@ ‘
.>0C@‘+.11A?‘J>.>‘.>B1,>D‘+1‘ < <‘ <0D‘51GG#1%1!‘
<0D‘ +@>‘ <D"<C>0+‘ A%<C>?‘ 10‘ +@>‘ C1<?+‘ @>‘ #0P
@><%+@ 0>??‘ 1'‘ +@>‘ ? +#<+ 10!‘ +1=>+@>.‘ J +@‘ +@<+‘ 1'‘
+@>‘<#+#B0<%‘?><?10!‘<0D‘<0‘ 0+>BA>.<+>‘ 0D#%=>0C>‘
0‘ '.# +?‘ <0D‘ J 0>!‘ ?11‘ $.1#=@+‘ 10‘ <0‘ >A D>B C‘
<B10=‘ +@>‘ ?1%D >.?!‘ J@ C@‘ ?J>A+‘ +% >B‘ 1'‘‘ 0‘ =.><+‘
0#B$>.?‘ @>‘ =<%%<0+‘ 10+A>0? >.‘ J<?‘ 10>‘ 1'‘ +@>‘
' .?+‘, C+ B?‘ >‘ .>'#?>D‘ +@>‘ ><.0>?+‘ ?1% C +<+ 10?‘ 1'‘
@ ?‘ $.1+@>.M 0M%<J!‘ +@>‘ <.F# ?‘ 1'‘ <0+#<!‘ +1‘ F# +‘
@ ?‘ #0'1.+#0<+>‘ C1BA<0 10?!‘ <0D‘ .>+ .>‘ +1‘ <‘ A%<C>‘
'‘ ?<'>+E‘ 0‘ +@>‘ 0+>. 1.‘ @>‘ ?@1.>‘ J<?‘ % +>.<%%E‘
?+.>J>D‘J +@‘ +@>‘ $1D >?‘ 1'‘+@>‘ DE 0=‘<0D‘+@>‘D><D‘
'‘+@>‘J@1%>‘0#B$>.‘1'‘ .>0C@B>0!‘ <B1#0+ 0=‘ +1‘
01+‘ %>??‘ +@<0‘ ' ,>‘ +@1#?<0D!‘ J@1‘ B<.C@>D‘ 1#+‘ 1'‘
+>%%<!‘ 01+‘ B1.>‘ +@<@‘ ' ,>‘ @#0D.>D‘ >,>.‘ .><C@>D‘
+@> .‘ 0<+ ,>‘ C1#0+.E‘ @>‘ J ??‘ <0D‘ 1+@>.‘ B>.C>P
0<. >?‘ J>.>‘?C<.C>%E‘B1.>‘'1.+#0<+>‘ Q‘ @>EUB<D>‘
+@U .‘ J<E‘ $<CH‘ <?‘ +@>E‘ C1#%D‘ +@.1#=@‘ +<%E!R‘ ?<E?‘ <‘
J. +>.‘ 1'‘+@>‘A>. 1D!‘ Q‘ 0‘ +@>‘ B1?+‘ D>A%1.<$%>‘ ?+<+>‘
1'‘ D>?+ +#+ 10‘ <0D‘ ?#''>. 0=!‘ +@>‘ =<G>‘ 1'‘ <%%!‘ <0D‘ <

?<D' >K<BA%>' 1'' +@>' C<A. C>' 1'' '1.+#0> T' #C@' J<?' +@>' B ?>.<$%>' '<+>' 1'' +@<+' $. %% <0+' <0D' '1.B D<$%>' <..<E!' J@ C@' ?C<.C>%E' +J1' E><.?' $>'1.>' @<D' A1#.>D' D1JO' 10' +@>' '< .' ' >%D?' 1'' +<%E' O' <%% +@>' O?1%>OC>' 1'' >KA>C+>D' C10F#>?+' >%% J1#%D' +' $>!' '' +@>' O<B>' 1'' >,>.E' C10F#>.1.!' J@1?>' ?#CC>??>?!' +@1#=@' $# %+' 10' @#B<O' B ?>.E!' <.>' ?1' D<GG% O=' +1' +@>' B<P = O<+ 10!' C1#%D' $>' B<D>' +1' A1 O+' <' B1.<% '1.' +@>' O?+.#C+ 10' 1'' @ ?' ?A>C >?' <?' >''>C+#<%%E' <?' +@<+' 1'' @<.%>?'

@>' E1#O=' S O=' 1'' <A%>?' D D' O1+' % ,>' %1O=' +1' >O"1E' @ ?' +. #BA@?' O' @ ?' .>+#.O' '.1B' +>%%<!' @>' C1O+.<C+>D' <O' O<#?A C 1#?' B<.. <=>' J +@' @ ?' <#O+!' <' %<DE' O><.%E' 1'' @ ?' 1JO' <=>!' +1' J@1B' @>' @<D' $>>O' %1O=' <++<C@>D' ' C<.>%>??' <OD' ?1B>J@<+' O+>BA>P .<+>' OD#%=>OC>' O' A%><?#.>!' ?#CC>>D O=' +@>' @<.DE' % '>' J@ C@' @>' @<D' $>>O' %<+>%E' %><D O=!' $.1#=@+' 10' <' '%#K!' J@ C@' C<.. >D' @ B' 1''' O' +@>' +J>O+E> =@+@' E><.' 1'' @ ?' <=>!' >A+>B$>.' @' 6: !' <OD' ?>C1OD' 1'' @ ?' .> =O' >' J<?' +@>' ' '+@' B1O<.C@' J@1!' O' +@>' $. >'' C1BA<??' 1'' +@.>>' E>< ?!' @<D' ?<+' 10' +@>' D ?<?+.1#?' +@.1O>' 1'' <A%>?

>.D O<OD' A1??>??>D' B<OE' F#<% + >?' ?# +>D' +1' +@>' +#.$#%>O+ + B>?' O' J@ C@' @>' % ,>D' >' J<?' , =1.1#?' <OD' A.1BA+' O' <C+ 10!' <OD' O<+#.<%%E' 1''<' @ =@' <OD' =>O>.1#?' ?A . +' + %%!' @1J>,>.!' @>' >K@ $ +>D' =% BAP ?>?!' >,>O' O' @ ?' %<?+' @1#.?!' 1''<O' 1$% F# +E!' O1+' +1' ?<E

T' /1, #?!' ?+1.' A' 9 O' D O !' ?+1.' D%+<% <!' % $' ' A!' 1 BO>?!' !, 'C'KK O/1, #?!' O' %%>O>#,>!' <A' 5>+ +1+!' +<!' % $' 'A' 77 'O' #CC<.M +1B!' K ,'A' 4

'>.1C +E' 1''+>BA>.!' J@ C@' C@<.<C+>. G>D' B<0E' 1'' @ ?' % 0>!' <0D' J@ C@' %>D'+1' 1B 01#?' C10">C+#.>?' <?'+1' J@<+' J1#%D' @<,>' $>>0' @ ?' '#+#.>' A1% CE T' >' J<?' ?#CP C>>D>D' 10'+@>'+@.10>' $E' @ ?' #0C%>' .>D>. C!' <' A. 0C>' 1'' <' =>0+%>' D ?A1?+ 10!' >0D><.>D' +1' +@>' ><A1%+<0?' $E'.>A><+>D' <C+?' 1'' $>0>,1%>0C>!' <0D' $E' <' B<=0<0 P B1#?' .>=<.D' '1.' "#?+ C>!' 1'' J@ C@' +@>' .>B<.H<$%>' '%#C+#<+ 10?' 1''@ ?' '1.+#0>' @<D' >% C +>D' B1.>' +@<0' 10>' >K<BA%>' ?' <B <$%>', .+#>?!' @1J>,>.!' .>F# .>D' <' H 0D% >.' ?1 %' <0D' ?><?10' '1.' +@> .' >KA<0? 10L' <0D!' <?' +@>' >,>0+' A.1,>D!' B<D>' @ B' 01' B<+C@' '1.' +@>' ?#$+%>' <0D' #0?C.#A#%1#?' A1%+C <0?' 1''+@>' <=>

?' ' .?+' <C+' J<?' <' =>0>.<%' <B0>?+E' +1' +@>' D ?<'P '>C+>D' ><A1%+<0?!' J@1' '>%+' ?#C@' C10' D>0C>' 0' @ ?' =11D' '< +@!' +@<+' +@>E' .>+#.0>D!' J +@' ?C<.C>%E' <0' >KP C>A+ 10!' +1' +@> .' <%%>= <0C>' ?' 0>K+' B><?#.>' J<?' +1' .>F#>?+' +@>' < D' 1'' 10?<%,1' D>' 1.D1,<' 0' ?#AP A.>?? 0=' +@>' @1?+ %>' B1,>B>0+?' B<D>' $E' +@>' .>0C@' D#. 0=' @ ?' <$?>0C>' '.1B' <%<$. <' +' +@>' 0<B>' 1'' +@>' .><+' <A+< 0!' +@>' +<% <0?' '%1CH>D' '.1B' <%%' F#<.+>.?!' +1' ?>.,>' J +@1#+' A<E' #0D>.' <' $<00>.' J@ C@' J<?' ?#.>' +1' %><D' +@>B' +1', C+1.E' 1J>.' <0D' +1J0!' <?' @>' <D,<0C>D!' J>0+' D1J0' $>'1.>' @ BL' <0D' +@>' .>0C@' =>0>.<%' #$ =0E' ?110' ?<J'@ B?>%'' .>D#C>D

Q' :,%))) ' !' 5,' %3 ,' 3,) ' A' , A 3' 0' %) ' ,4!' FF,F!' (!' ,,! J $) 1) ' '4' 4 $'A' ' A,1' %)5' %,5' 8, !' 5,' %3 ,' ,4!' .,!' (!' ,,!' % ' A '0 ' 0' A, ' ($(A' A% ' A ' J !' % C ' 3$' 3, !' 3!' 1,'A' 4' % $ 5' B, A' A, ' B)' (FFF.,,,! C ' 0' A ' F ($,)' 0' A ');

9 A, (A 5')' A, ' 5 % A;)(!' ,%' E,),G,%)%' ,4!' 4 5' 5,)%)5' %((5,)'' ' ,,,!' 3!' IH! (14 ' (%$ 5' A ' A %5' 0' A,

, ' F3 5' ' A ' .)%' ,)0 $)(' BA,(A' 5' A,1' ' 0)' (' 13 C' A ' ' 5)' ' ,)' 3)' 0' A, C' % ' ,) ' 5,(% 5!'); 0 $)% C ' %' %1) %4 ' A,% $ ' ((., ' ,)' A, ' ' % ' B @' Y' 8, >' , ' $,' 13 , [' 14 %(,) '' A ' BA ' 3 , 5' ,) .),) '' 4 ; B)' A ')5' 0' *A% ' E !K ' F3 5, ,)' %)5' A ' %((,)' ; ' = ' 6 !' ' A ' ,1 ' 0' A ' 1 1 %4 ' %(@' 0' 1 ' 4C' A ' $@ ' 5 ' $ 4)' 6 / ' :, ., ' 5 3 , 5' A, ' 1%)$ (,3 ' B A' % 2$%) , C' 0' 3 % ' ,)' %)' ,)' (A ' BA,(A' A ' A,5' ,)' %)' 4 ($ ' (1 ' 0' A ' (A$ (A' 0' %) %' % ,%' 3 % ,) .%!' A ' % $ ' A B . ' 5,5') ' (%3 ' A ' % (A,) '' C ' 0' B ' 3%), A' 5, ' BA ' 4 @ ' 3)' A ' (A ' %)5') ' 0' A 1' ,G 5')' A ' 3 % ' '% 5,) '' A ' 3%3 ' % ' 0') ' .% $!' A ' A ') ' 4 ,) '' 2$, ' $(A' %' 0 ' %C ' :, ., ' 3 . 5' $(A' 0' A ' !' % ' B ')' . $1 ' %)5')%1) 5' B, A' ,(A' 4,)5,) ' ' 4$ ' A B' %B%C' BA% ' B% ' B ,)')' 3%3 !

A ' 3% ' A$ ' A B)' %B%C' ( ) %,) 5' ,F' 4 @ ' % ,) '' ' A ' 3 , 5' %4 . >1) ,) 5' BA,(A' B ') . ' %0 B% 5 ' (. 5!' A ' 5, ' 4 $'A ' A ' 1%,)5 ' ' A , ' %$ A ' BA ' 4 $'A ' A 1' % ' A ' 3 ,(' 0' %' .%(%) ' 4) 0,(' BA,(A' A ' 3 $%5 5' A ' 3 3 ' ' ( )0 ')' A ' 0 4 ' ,)' A, ')% , . ' %)5' 0' * 5 .%!' ' , ') ' 0)' A% ' ,1)C' A% ' 0 $)5' ' ' 5%)' %3 'C!' A ' 5 0,(,)(C' % A $'A') . ' 3%A 5' 4C' :, ., ' B% ' ,)' 1 ' 5 ' ' $33 , 5' 4C' A, ' 4, ' %3A, ' 0' 1,)) ' 1) ' %)5' %1) '' A ' 4C' A% ' 0' :) % . ' 5 ' * 5 .%' ,)' BA,(A' A ' A% ' ((5' B, A' ' %' ,)5$ C' % ' A ' .) ' 0' %)C' ,) ' ,)' A ' ,0 ' 0' A, ' ' %' (1 1%)5 !' A ')% % ,. ' , ' ,)' ') %' (4 % 5' 4C' A ' 3%;), A' %$ A , , ' %)5' ( ) %,) ' 1 ' %55, ,)% ' 3% ,($ % ' 3 (,% C' 3 (,) '' A, ' % C' ,0 ' BA,(A' :, ., K ' 3)%' ,) ,1%(C' B, A' A ' 3 ,)(,3% ' (A% %(' 0' A ' 3 , 5' 1,'A ' % , C' A%. ' 0$), A 5' A,1!

A, ' 3 ,)' 0' $ ' C' , ' 1 . ' , $ % 5' 4C' A ' %4 $ ' 0') !' , 1)5, ' ,)' A, ' 3$4 ,2$ ' % ,)) ' BA,(A' 1%C' $); 5 $4 5 C' (%,1' ' 4 ' %)@ 5' %1) '' A ' 1 ' 1% @%4 ' A, ; ,(% ' %(A, . 1) ' 0' $ ' ,1 ' BA A ' B ' ( ) ,5 ' A ' 5 F $ ' 1%)%' 1) ' 0' A ')% % ,. ' ' A ' %51, %4 ' 3, , ' 0' 3A, 3AC' 4C' BA,(A' , ' , ' , $1,) 5!' ' 1$ ' 4 ' %51, 5' A% ' A ' A% ' 3 ; 0 (C' $((5 5' ,) ' $) %. ,) '' A ' ,) ,(% ' B 4' 0' % ,%) ' 3 , ,(< %)5 ') B, A %)5,) '' A ' (13 ,(% 5 ' %) 5 ' ,)5 5' 1 C' (A% %(>

ʻ 0ʻ A, ʻ $4+ (ʻ A ʻ A, ,%)ʻ A% ʻ 0ʻ %)ʻ $),0 1ʻ %)5ʻ A% 1), $ʻ ,13 ,)ʻ)ʻ A ʻ 1,)5ʻ 0ʻ A ʻ %5 !ʻ A, ʻ A ʻ A% ʻ %((13 , A 5ʻ K4Cʻ @ 3,)'ʻ ( ) %) Cʻ ,)ʻ ., Bʻ A ʻ 3 ,)(,3 ʻ BA,(Aʻ '$ % 5ʻ % ʻ A ʻ .% , $ʻ 1 . 1) ʻ 0ʻ A ʻ (13 Fʻ 1%(A,) Cʻ ʻ A% ʻ A, ʻ)% % ,. ʻ 4 (1 ʻ BA% ʻ A ʻ 1 ʻ , ʻ ,)ʻ A, ʻ)' , Aʻ %4 ,5' 1) ʻ %ʻ A, Cʻ 0! % ,%)ʻ ,4 C!ʻ Cʻ @ 3,)'ʻ A, ʻ 3 ,)(,3 ʻ %5, Cʻ 4 ; 0 ʻ A, 1 ʻ A ʻ A% ʻ 4)ʻ %4 ʻ ʻ . ʻ 1$(Aʻ A% ʻ A, A ʻ B% ʻ 5% @ʻ %)5ʻ 3 4 1% ,(% ʻ ,)ʻ A, ʻ $4+ (< %)5ʻ ,0ʻ A ʻ A% ʻ ((% ,)% Cʻ %(,0,(5ʻ 1 A,)'ʻ ʻ A Cʻ A ʻ A% ʻ)ʻ A ʻ BA ʻ 3$ $ 5ʻ A ʻ ,) . ,'%; ,)ʻ ,)ʻ %ʻ $ Cʻ 3A, 3 ,,(%ʻ 1%)) ʻ %)5ʻ % ,. 5ʻ % ʻ $ ʻ A ʻ 1 ʻ A) $ %4 ʻ%)5ʻ (A ,)'ʻ ʻ A$1%), C!

$)% Cʻ A, ʻ B)ʻ 1,)5ʻ B% ʻ 5 3 Cʻ 3) % 5ʻ B, Aʻ %ʻ . ;)(ʻ 0 ʻ A ʻ 0 ʻ ,) , $,) ʻ BA,(Aʻ A ʻ A% ʻ %)% C 5!ʻ 0ʻ , ʻ , ʻ ʻ 1$(Aʻ ʻ %Cʻ A% ʻ A ʻ A, ,%)ʻ 0ʻ 3$4 ,(ʻ A $ 5ʻ 4 ʻ A, 1 0ʻ %ʻ 3$4 ,(%) ʻ , ʻ , ʻ % ʻ % ʻ $ ʻ A% ʻ A, ʻ $ʻ A $ 5ʻ 4 ʻ 3) % 5ʻ ʻ , ʻ . Cʻ 5 3 A ʻ B, Aʻ A ʻ 3, , ʻ BA,(Aʻ %), 1% ʻ A 1!ʻ ʻ) ʻ BA ʻ @ʻ) ʻ 1,)ʻ B, Aʻ A ʻ . ʻ 0ʻ 5 1 ʻ (%)ʻ 0$), Aʻ A ʻ @ Cʻ ʻ 1$(Aʻ A% ʻ ,?),' 1%,(% ʻ ,)ʻ A ʻ (A% %(ʻ %)5ʻ ( )(, ʻ A, ʻ %5 ʻ ʻ A ʻ A% A ʻ%)5ʻ 3$,. ʻ 0 % $ ʻ A ʻ 1 ,1 ʻ B % ʻ 4Cʻ . % ,)'ʻ A ʻ 4 %$ Cʻ %)5ʻ ' %)5 $ʻ 0ʻ A ʻ $ʻ B, A,)!

A% ʻ 3 ,)ʻ 0ʻ $ʻ)% % ,. ʻ BA,(Aʻ , ʻ ,)(3 % 5ʻ B, Aʻ % ,%)ʻ Cʻ , ʻ ʻ 1% ʻ !ʻ (($3Cʻ 1$(Aʻ 3%(ʻ)ʻ , 1)5,K ʻ 3 %)!ʻ 8 ʻ A% ʻ 5, ($ 5ʻ , ʻ 1 . ʻ ,)ʻ % 1%)) ʻ) ʻ . Cʻ 0%. $ %4 ʻ ʻ A ʻ 3%),% 5 ʻ BA 1ʻ A ʻ 1 ʻ ʻ A%. ʻ '% 5 5ʻ B, Aʻ 1 BA% ʻ 0ʻ A ʻ %. ,)ʻ B, Aʻ BA,(Aʻ %)ʻ % ,%)ʻ 0ʻ A ʻ ,F) Aʻ ( ) $ Cʻ ., B 5ʻ A ʻ $ %1) %) ʻ 4% 4% ,%) ʻ 0ʻ $ 3 !ʻ A%3 ʻ A ʻ %5 ʻ 1%Cʻ 0,)5ʻ 1 ʻ %5.%) %' ʻ ,)ʻ ( ) 13 %,) '%) , ʻ ,5 ʻ 0ʻ A ʻ 3,(; $ ʻ%)5ʻ $5C,)'ʻ A ʻ ʻ 0%1, ,% ʻ 5 %, ʻ 3) 5ʻ 4Cʻ A ʻ 3%), Aʻ %$ A , , !

5

5 5 O

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6: O 6:4

@<D $>>0 <..<0=>D $E +@> +.><+E 1 >0 C>! +@<+! J@ %> +@> <%% >? J>.> C<..E 0= 10 +@> J<.> 0 <A%>?! +@> >BA>.1.> >%>C+ <0D +@> S 0= 1 A< 0 ?@1#%D B<H> < D ,>.? 10 0 +@> .> '<,1#.> $E 0,<D 0= +@> .>0C@ '.10+ >.?> >.D 0<0D @<D A>.'1.B>D @ ? A<.+ 1 +@> >0=<=>B>0+> ,>.> ? 0C> +@> $>= 00 0= 1 +@> J<.> @> @<D B< 0+< 0>D < %<.=> '1.C> <%10= +@> $1.P D>.? '.1B 10+<.<$ < +1 5>.A =0<0> 0 6: ! +@> .>=#%<.> <.BE H>A+ 0 A<E <B1#0+>D +1 ! > @1.?> <0D 8! > '11+L J@ C@! +1=>+@>.> J +@ +@> C % <0 <.B<B>0+! 0>C>??<. %E 0,1%,>D <0 >KA>0D +#.> >KP C>>D 0=%E @><,E #0D>.> +@> ' 0<0C <% A.>??#.> 1CC<P ? 10>D $E +@> 11. ?@ J<.> @> C1B B<0D 1 +@> %>P , >? 0 1#?? %%10 J<? = ,>0 +1 10 0. F#> 0. F#>G D> #GB<0! J@1! '<.> '.1B <C+ 0= 10 +@> D>'>0? ,>! C<.. >D @ ? B>0 .>A><+>D%E 1,>.> +@> $1.D>.! ?J>>A 0= 1 + ' '+>>0 1.> +J>0+E +@1#?<0D @><D 1 C<++%> 0 < ? 0=%> '1.<E! <0D .<,<= 0= +@> ($) C <? '<.> <?

<.C<??10< <0D <.$100> T @> .>0C@! J@1 @<D C10C>0+.<+>D <C10?D>.<$%> '1.C> 0 +@> ?1#+@! .>+<P % <+>D $E ? B %<.' 0.1<D?! 0 10> 1 " J@ C@ +@>E ?#CP C>>D>D 0 ?#.A.H 0= +@> '1.+ ' >D +1J0 1 " <%?<? @> J1.H?! @1J>,>.! J>.> 0 ?1 D %<A D<+>D < ?+<+> +@<+ +@> A%<C> J<? ?C<.C>%E +>0<$%>! <0D + J<? <$<0P D10>D 10 +@> <AA.1<C@ 1 " +@> A<0 ?@ <.BE '+.#C> ?110 '1%%1J>D! J@ C@ A#+ <0 >0D +1 '#.+@>.' 1A>.<+ 10? 0 +@<+ F#<.+>. '

@>?#$B ?? 10 1 " <%<$. <?>>B>D +1 %><,> 01 '#.P +@>.' 1CC#A<+ 10 '1.' +@> <.B? 1 " +@> .><+ <A+< 0 0 +<%E ' >'1.> F# ++ 0= +@<+ C1#0+.E! @1J>,>.! @> >0=<=>D 0 <0 <D,>0+#.> J@ C@! <? 0<..<+>D $E @ ? $ 1=.<A@>.?! '1.B? < $. %% <0+ >A ?1D> +1 @ ? .>=#%<.' C<BA< =0? ?+ <! +@> ?><A1.+ 1 " 1B >! J<? <B10= +@> A%<C>? 0 +@> A<A<% +>.. +1.E '1.C $%E 1CC#A >D $E @<.%>? ! <0D 10 @ ? .>+.><+ @<D $>>0 %>'+ +1 <.>0C@ =<.. ?10 #0D>.' +@> C1BB<0D 1 " < ?C<E<0 <D,>0+#.>.' 0<B>D >0<%D1 #>.. ' @> A%<C> J<? ?1 ? +#<+>D <? >0+ .>%E +1 C1BB<0D +@> B1#+@ 1 " +@> $>.! >0<$% 0= +@> A .<+ C<% @1.D> J@1 =<.. ?10>D + <%B1?+ J@1%%E +1 D>?+.1E +@> C1BB>.C> 1 " 1B>!

L N$,%8, 5 8)%)5 '),3($),%%51,), %,)) ,4!,,! (!F,,JF,.!F.,! FF,.! 3 ,) ,' !K 8, $, :,.,%C ,)%$,)' 13 ,3! D ! " ,) ' 5,)%)5K A B 0 3 3%; N$,%8, 5 8)%)5 %,)) A 0), Y 5,> ,4!,,! (! ===E! FFF.,! JT 4% (%)%)5$ 1%F,1T (%$ $ 3 ($> C 5 %') ! FFF! (!,F!),)%F 3 (,1 ,)'), J :%,4%C * 13)5! 8, ! 1! (%(, F (,$ %5 5)5 ,,! ,4! F,F! (! .! J A,,33 5 * ; A 3 4 2$%1 A ,$1),,) ,.! .,,! (!FF,,,! J ! <.P ' 1% 2$$1 ,5 ,) ,)> C 3$ 3, ! 3! (F,F!

<0D' >,>0' +1' .>D#C>' +@>' C +E' +1' =.><+' D ?+.>??' '1.' J<0+' 1''A.1, ? 10?' @>' B$>C %>' =1,>.0B>0+!' 0C<P A<$%>' 1'' D>'>0D 0=' +?>%'!' BA%1.>D' 10?<%,1?' < D' 0' D ?%1D= 0=' +@ ?' 0>?+' 1'' '1.B D<$%>' '.>>$11+>.?' @>' A<0 ?@' =>0>.<%!' J@1' J<?' 01J' <+' %> ?#.>!' C1BA% >D' J +@' +@>' A10+ '' ?' ?1% C +<+ 10?!' <0D' ?110' <'+>.' A.>P ?>0+>D' @ B?>%'' $>'1.>' ?+ <' J +@' @ ?' % ++%>' C1.A?' 1'' +.11A?!' <B1#0+ 0=' 0' <%%' +1' ' @1.?>' <0D' 8 ' '11+ T

#>.. !' +.#?+ 0=' +1' +@>' ?+.>0=+@' 1'' $?' D>'>0C>?!' .>'#?>D' +1' ?#..>0D>.' 10?<%,1!' <'+>.' C11%%E' A >M' A<. 0=' @ ?' $<++>. >?!' 1A>0>D' <' @><,E' C<0010<D>' 10' +@>' A%<C>!' J@ C@' <+' +@>' >0D' 1'' ' ,>' D<E?' >''>C+>D' <' A.<C+ C<$%>' $.><C@' 0' +@>' J<%%?' 0' +@>' B><0' + B>!&' <.C %<??1' D>' %<' >=<!' +@>' <?+ % <0' <B$<??<D1.' <+' +@>' A<A<%' C1#.+!' J@1' C1#%D' 01+' $><.' +1' .>B< 0' 0<CP + ,>' ?1' 0><.' +@>' ' >%D' J@>.>' %<#.>%?' J>.>' +1' $>' J10!' <.. ,>D' +1' 10?<%,1?' ?#AA1.+!' J +@' <' @<0D'#%' 1''@ ?' 1J0' C1#0+.EB>0' .>?D>0+' 0' 1B>' @ ?' =<%%<0+ % ++%>' $<0D!' ?C<% 0=' +@>' J<%%?' 10' +@>' 1AA1? +>' ? D>' +1' +@<+' <??< %>D' $E' 10?<%,1!' >''>C+>D' <0' >0+.<0C>' 0+1' +@>' +1J0!' J@ %>' +@>' =<.. ?10' J<?' 1CC#A >D' J +@' B< 0+< 0 0=' +@>' $.><C@' <=< 0?+' +@>' B< 0' $1DE' 1'' +@>' A<0 <.D?Z' @#?' ?#.A. ?>D!' <0D' @>B B>D' 0' 10' $1+@' ? D>?!' #>.. ' <0D' @ ?' <??1C <+>?' B<D>' 01' '#.P +@>.' .>? ?+<0C>!' $#+' ?#..>0D>.>D' +@>B ?>%,>?' A. ?10>.?' 1'' J<.L' <0D' 10?<%,1!' J +@' B1.>' C%>B>0CE' +@<0' #?#<%%E' ?@1J0' 10' ?#C@' 1CC<? 10?!' ?+1AA>D' +@>' C<.M

L' ? .,$ ' E,%' ,4!',!'3! !' ===!JN$,%8, !' ,4!,,,!'(!,!J' J *A)!' 5 ' : !' *%3,%)' (! 1 , '5'E,) $. '3!' />

0<=>!‘ <0D‘ .>?>.,>D‘ @ ?‘ C<A+ ,>?‘ +1‘ =.<C>‘ @ ?‘ >0+.E‘ 0+1‘ +@>‘ C<A +<% T

@ ?‘ J<?‘ B<D>‘ <‘ '>J‘ D<E?‘ <'+>.!‘ J +@‘ <%%‘ +@>‘ A1BA‘ 1'‘ <‘ 10'+ 0‘ +. #BA@‘ @>‘ A<0 ?@‘ =>0>.<%‘ >0+>.>D‘ $E‘ +@>‘ =<+>‘ 1'‘ ?+ <!‘ <+‘ +@>‘ @><D‘ 1'‘ @ ?‘ B<.+ <%‘ ?F#<D.10?‘ 0‘ $<++%>‘ <..<E!‘ J +@‘ C1%1#.?‘ '%E 0=‘ <0D‘ B#? C‘ A%<E 0=!‘ J@ %>‘ +@>‘ .><.‘ J<?‘ $.1#=@+‘ #A‘ $E‘'+@>‘ C<A+ ,>‘ C@ >'‘ <0D‘ @ ?‘ C10'>D>.<+>?!‘ ?1‘ %10=‘ +@>‘ +>..1.!‘ 01J‘ +@>‘ D>. ? 10‘ 1'‘ +@>‘ A1A#%<C>‘ @>‘ $<%C10 >?‘ <0D‘ J 0D1J?‘ J>.>‘ C.1JD>D‘ J +@‘ ?A>C+<P +1.?!‘ <0D‘ +@>‘ ?+.>>+?‘ % 0>D‘ J +@‘ B#%+ +#D>?‘ J@1 ?@1#+>D‘ '1.+@‘ +@>‘ 0<B>‘ 1'‘ 10?<%,1‘ D>‘ 1.D1,<!‘ +@> Q‘ D>% ,>.>.‘ 1'‘ 1B>ZR‘ @>‘ A.1C>?? 10‘ +11H‘ +?‘ J<E‘ +@.1#=@‘ +@>‘ A. 0C A<%‘ ?+.>>+?‘ 1'‘ +@>‘ C +E‘ +1J<.D?‘ +@>‘ <+ C<0!‘ J@>.>‘ %>K<0D>.‘ ‘ <J< +>D‘ +?‘ <AP A.1<C@!‘ ?><+>D‘ #0D>.‘ <‘ C<01AE‘ 1'‘ ?+<+>‘ 0‘ +@>‘ C@ >'‘ ?<%110‘ 1'‘ +@>‘ A<%<C>!‘ ?#..1#0D>D‘ $E‘ @ ?‘ =.><+‘ >CC%>P ? <?+ C?‘ <0D‘ 01$ % +E‘ 0‘ 10?<%,1?‘ >0+.<0C>!‘ +@>‘ C<.D 0<%?‘ .1?>‘ +1‘ .>C> ,>‘ @ B‘ @>‘ A<0 ?@‘ =>0>.<%‘ H0>%+‘ D1J0‘ +1‘ .>C> ,>‘ +@>‘ $>0>D C+ 10‘ 1'‘+@>‘ A1A>L‘ $#+‘+@>‘ %<++>.!‘ .< ? 0=‘@ B‘#A!?<%#+>D‘@ B‘10‘+@>‘ '1.>P @><D!‘ <0D‘ C1BA% B>0+>D‘ @ B‘ J +@‘ +@>‘ =1%D>0‘ .1?>!‘ J@ C@‘ +@>‘ 1%E‘ >>‘ J<?‘ <CC#?+1B>D‘ +1‘ D ?A>0?>‘ <?‘ +@>‘ .>J<.D‘1'‘ +?‘ B1?+‘ D>,1+>D‘C@<BA 10?

0‘ +@>‘ C10,>.?<+ 10‘ J@ C@‘ >0?#>D!‘ 10?<%,1‘ 1$P +< 0>D‘ +@>‘ A<.D10‘ 1'‘ #>..‘ <0D‘ @ ?‘ <??1C <+>?!‘ <0D‘ <0‘ >K>BA+ 10‘ '.1B‘ +<K>?‘ '1.‘ +@>‘ 1AA.>??>D‘ 0@<$ +P <0+?‘ 1'‘ ?+ <‘ ‘ 0‘ <‘ ?#$?>F#>0+‘ A<.+‘ 1'‘ +@>‘ D ?M

L‘ ? .,$ ‘E,%‘ :) % .,‘ 3!‘ ‘T !#$,) %)%‘ E,5% ‘ 1!‘ ,! 3!‘ D!

C1#.?>!’ +@>’ A1A>’ +<H 0=’ 1CC<? 10’ B1?+’ 01AA1.+#0>%E’ +1’ <CC#?>’ +@>’ A<0 ?@’ ?1,>.> =0?’ 1’’ #0’<,1#.<$%>’ D ?A1? + 10?’ +1J<.D?’ @ B?>%’!’ 10?<%,1’ .>A% >D’ J +@’ B#C@’ J<.B+@!’ >0#B>.<+ 0=’ +@>’ ,<. 1#?’ =11D’ 1’% C>?’ .>0D>.>D’$E’+@>B’ +1’ +@>’C@#.C@’L’ <0D!’.1#0D%E’+<K 0=’ +@>’ A1A>&J +@’ 0=.<+ +#D>!’ @>’ ?1B>J@<+’ $%#0+%E’<DP , ?>D’ @ B’ +1’ .>’1.B’ @ ?’ % ’>’ <0D’ C10,>.?<+ 10!’ J@ C@’ $.1#=@+’ ?C<0D<%’ 10’ <%%’ @. ?+>0D1B ’ ?’ @$% 0>??’ +>?+ ’ >D’ 01’ 0D =0<+ 10’ <+’ +@ ?’ #0?<,1#.E’.>$#H>’1’’ +@>’ .><+’ <A+< 0!’ +@1#=@!’ <?’ +@>’ @ ?+1. <0?’ J +@’ ?1B>’ 9’ 0’1.B’ #?!’ @>’ J<?’ =.><+%E’?#.A. ?>D’ +1’ ’ 0D’ +@>’ %<++>.’ ?1’ ’%#>0+’ 0’ D ?C1#.?>!’ <0D’ J>%%’ 0P ?+.#C+>D’ 0’ B<++>.?’ ’1.> =0’ +1’@ ?’A.1’>?? 10 T

10?<%,1’>KA>. >0C>D’ +@>’ B1?+’ @101#.<$%>’ .>C>AP + 10’ ’.1B’ S 0=’ .>D>. C’ $0’ @ ?’ .>+#.0’ +1’ <A%>?’ #. 0=’ @ ?’ C10+ 0#<0C>’ +@>.>!’ @>’ J<?’ %1D=>D’ <0D’ ?#BA+#1#?%E’ >0+>.+< 0>D’ 0’ 10>’ 1’’ +@>’ .1E<%’ ’1.P +.>??>?’L’ <0D’ +@>’ =.<+>’#%’ B10<.C@’ .>F# +>D’ @ ?’ ?>.P , C>?’ J +@’ +@>’ + +%>’ 1’’ #H>’ 1’’ +’ 0=>%1!’ <0D’ <0’ >?+<+>’C10+< 0 0=’ ’ ,<??<%?’ 0’ $.#GG1’ >’ @<D’ $>’1.>’A.>??>D’ +@>?>’ @101#.?’ 10’ +@>’ , C+1.!’ J@1’D>P C% 0>D’ <CC>A+ 0=’ +@>B’ + %%’ @>’ @<D’ 1$+< 0>D’ +@>’C10P ?>0+’ 1’’ @ ?’ 1J0’ ?1,>.> =0?’ 110’ <’+>.!’ 10?<%,1!’ F# ++ 0=’ <A%>?!’ .>, ? +>D’ C %E!’ J@>.>’ @>’ <D"#?+>D’ C>.+< 0’ D ’’>.>0C>?’ J@ C@’ @<D’ <. ?>0’ $>+J K+’ +@>’ , C>.1E’<0D’+@>’ 0@<$ +<0+?!’.>?A>C+ 0=’+@>’.> >0#>?’ 1’’ +@>’ ?%<0D’ @>0!’ >B$<.H 0=’ J +@’ @ ?’ J@1%>’ ’1.C>!’ @>’ .><C@>D’ +@>’ ?@1.>?’ 1’’ A< 0’ 0’ +@>’ B10+@

L’ ? .,$ ’ E, %’ 3!’ ! J N$>’ !’ 5K % !’ ,4’ ,,,!’ 3!’ /6!’ J’ , %’ ,4!’ ,,,!’ (!’ ,! J : $,((,% 5,), L’ *A)!’ 5 ’ : %)’ *%3, %) ’ (!FFF!

1'' #=#?+' 6:4 ' ?' .>+#.0' +1' @ ?' 0<+ ,>' %<0D' J<?' =.>>+>D' J +@' <' =>0>.<%' >0+@#? <?B' '<.' B1.>' =.<+>'#%' +1' @ ?' A<+. 1+ C' @><.+' +@<0' <0E' @1B<=>' 1.' @101#.?' C10'>..>D' $E' '1.> =0' A. 0C>?' ?<$>%%<' J>%C1B>D' @ B' J +@' A. D>' <0D' ?<+ ?'<C+ 10!' <?' @<, 0=' '#%%E' , 0' D C<+>D' @>.' A.>'>.>0C>' 1'' @ B' +1' @ ?' B1.>' >KA>P . >0C>D' . ,<%?' '1.' +@>' D '% C#%+' A1?+' 1'' +<%E!' <0D' >.D 0<0D' D D' 01+' @>? +<+>' +1' D>C%<.>!' +@<+' +@>' <%<P $. <0' C<BA< =0?' .>'%>C+>D' B1.>' %#?+.>' 10' @ ?' C.1J0' +@<0' +@>' C10F#>?+' 1'' .<0<D< T

@>' +1+<%' >KA#%? 10' 1'' +@>' .>0C@' '.1B' <A%>?' $.1#=@+' @1?+ % + >?' $>+J>>0' +@<+' 0<+ 10' <0D' A< 0' +1' <' C%1?>' @>' %<++>.' @<D' =< 0>D' @>.' A1 0+!' <0D' +@>' '1.B>.' @<D' % ++%>' @><.+' +1' .>?#B>' ?1' D ?<?+.1#?' <0' >0+>.A. ?>' >'1.>' +@ ?'>,>0+!' 0D>>D!' 1,>.+#.>?' @<D' $>>0' B<D>' $E' +@>' .>0C@' C1#.+' '1.' <' ?>A<.<+>' +.><+E' J +@' A< 0' @>' %<++>.!' @1J>,>.!' J<?' #0J %% 0=' +1' >0+>.' 0+1' <0E' C1BA<C+!' J +@1#+' +@>' A<.+ C A<+ 10' 1'' @>.' <%% >?' '+>.' +@>' +1+<%' <$<0D10B>0+' 1'' +@>' .>0C@' >0+>.A. ?>!' +@>.>' ?>>B>D' +1' >K ?+' 01' '#.+@>.' ÚA.>+>K+' '1.' A.1%10= 0=' +@>' J<.' @>' A<0 ?@' =1P ,>.0B>0+!' B1.>1,>.!' @<D' % ++%>' C<#?>' '1.'?<+ ?'<C+ 10' J +@' +?' C10'>D>.<+>?' @>' >BA>.1.' @<D' 01+' C11A>P .<+>D' 0' +@>' D>?C>0+' 10' +@>' >0>BE?' '.10+ >.!' <CC1.DP 0=' +1' <=.>>B>0+L' 01.' @<D' +@>' <%% >?' >,>.' .> B$#.?>D' A< 0' '1.' +@>' @><,E' C@<.=>?' 0C#..>D' 0' '#%' %% 0=' @>.' A<.+' 1'' +@>' >0=<=>B>0+?' @>' >0>+ <0?' J>.>'+<H>0' #A' J +@' ?>C#. 0=' +1' +@>B?>%,>?' <?' B#C@' 1'' +@>' ><M

L' E, %' %')' :) % .,' 3!' (! FFF,! FFF,,! J N$, %' 8, ' 5 ' !> J *A)! 5 ' : %)' *%3, %) ' 8)%)5 ' ,4!,,,! (! FFF.,,,!

E ! ! 7'

A1% +<0 +>.. +1.E <? +@>E C1#%D! $E J<E 1 ' 0D>B0 P ' C<+ 10 '1.' +@> .' 1J0 >KA>0?>? T @>' #H>' 1 ' %<0 @<D <%.><DE B<D>' <' ?>A<.<+>' +.><+E J +@' S 0=' @<.%>?' 0 ?@1.+! >,>.E B>B$>.' 1 '+@>' %><=#>! <'+>.' +@>' ' .?+ <%<. B @<D ?#$? D>D! @<D ?@1J0 +?>%' .><DE +1'?<C. ' C>' +@>' C1B B10 J><% +1 +? 1J0 A. ,<+>' >0D?' +@' +@>?>' C<#?>?' 1 ' D ?=#?+! +@>' A<0 ?@' =1,>.0P B>0+ C10?>0+>D +1' <' +.#C>' J +@' 5U.<0C>! +1' $>= 0' '1.' +?>%' 10 +@>' 8+@' 1 ' <.C@! <0D '1.' +@>' <%% >?! ' +@>E C@1?>' +1' $>' 0C%#D>D' 0' +! ?>,>0' J>>H?' %<+>.! <0D +1' C10+ 0#>' + %% +@>' >0D' 1 ' C+1$>.' 6:9' @ ?' +.#C>' J<?' ?#$?>F#>0+%E A.1%10=>D! <0D' <'+>.' +@>' D><+@' 1 ' @<.%>?' ' +>.B 0<+>D' 0' <' D>' 0 + ,>' +.><+E 1 ' A><C>! ? =0>D' <+' <.C1#?? ! #=#?+ 8+@! 6:4 ' 0' +@>' D ?C#?? 10?' +1' J@ C@' +@>?>' <..<0=>B>0+?' =<,>' . ?>! +@>' A.1">C+ J<?' ?< D' +1' @<,>' $>>0' $.1<C@P >D' '1.' +@>' C10F#>?+ <0D' D , ? 10' 1 '+@>' H 0=D1B' 1 ' <A%>?' $E +@>' C1B$ 0>D' A1J>.?' 1 ' .<0C>' <0D' A< 0! J@ C@' J<?' C<.. >D' 0+1' >''>C+ ?1B>' E><.?' %<+>.' CP C1.D 0=' +1' 1B 0>?! +@>' A.1A1? + 10' 1. = 0<+>D' J +@' +@>' A<0 ?@' C1#.+! <%+@1#=@' +' ?<J' ' +! 0' <' ?#$?>M@' F#>0+' A>. 1D' 1 '+@>' 0>=1+ <+ 10?! +1' D ?<,1J' + 3' @>

L' * 1,) ' %C ' B, A' 1 ' P,#!#',)' 0)(' ' A '3%(' ,)' %3 ' BA,(A' A ' E) ,%) ' A%5' ' ' ,) ' A , ' 3 ,)' 8' ? '(C>2$ ' $',)) ,)')K ' 3 ,)' 5 ' ')5 <' (%' , ')' 0)' 3 ,)' 5 ' ($ $1 ' 2$%)5' '? $ ')'4,) %) '(11 ')' (>(C' 2$,')' 5$' (' 5 ' $0' $0 '5 'E), ![' >' 1 , ' 3! HD!

]' :$,((,% 5,), ' !5K % ! ,4! ,,,! 3! /I!hN$, % ' 8, ' 5 ' 8 1! ,4! ,,! (! F ,.!< ,4! ,,,! (! F,,,! F,F! FF,! FF.,! J * 1,) ' ,.! ' .,,,! (A! FF,,,!

' > (6)/0 &,/0 0(6/ *%!< (%0 ./4' 0!/08/*4)&45/ !/)*5 /6='00:' 9 *5 5/ *()0./!04(5',/=//)' *(68/4/:'(%*944/:' =:' 45/0%8/! (! 6')'&/6/)4 (' 45/ 8')05 &(,/!)6/)4;' 95(

A<0 ?@' J . +>.?!' 10' +@>' 1+@>.' @<0D!' B A#+>' +@>' ' .?+' ?#==>?+ 10' 1'' +' +1' +@>' .>0C@!' J @1!' +@>E' ?<E!' J >0+' ?1' '<.' <?' +1' ?A>C 'E' +@>' D>+< %?' 1'' +@>' A<.+ + 10' ?#$P ?>F#>0+%E' <D1A+>DL' <CC1.D 0=' +1' J @ C@' +@>' +J 1' <M' %<$. <?' J>.>' <?? =0>D' +1' A< 0 ' 1J>,>.'+@ ?' B<E' $>!' +@>.>' ?' % ++%>' D1#$+' +@<+' >.D 0<0D' @<D' %10=' ? 0C>' >0+>.+< 0>D' +@>' D><' 1'' <??>.+ 0=' @ ?' C%< B!' <+' ?1B>' + B>' 1.' 1+@>.!' +1' +@>' C.1J0' 1'' <A%>?' >!' <?' J>%%' <?' @ ?' '<+@>.!' <0D' 0D>>D' +@>' J@1%>' 0<+ 10!' @<D' $>@>%D' J +@' D ??<+ ?'<C+ 10' +@>' +.<0?'>.' 1'' J@<+' +@>E' D>>B>D' +@> .' . =@+'#%' 0@>. +<0C>!' A#.C@<?>D' $E' +@>' $%11D' <0D' +.><?#.>' 1'' .<=10!' +1' <0' %%>= + B<+>' $.<0C@' 1'' +@>' '<B %E' @>' <CC>?? 10' 1'' .>D>. C!' 0' A<.+ C#%<.!' J@1' C<B>' +1' +@>' +@.10>' J +@' +@>' ?#AA1.+' 1'' +@>' 0=>, 0' A<.+E!' +@>' 1%D' >0>B >?' 1'' .<=10!' @<D' = ,>0' =.><+' #B$.<=>' +1' +@>' A<0 ?@' B10<.C@

@>' <?+ % <0' >0,1E!' <.C %<??1' D>' %<' >=<!' <=.>>P <$%E' +1' +@>' 0?+.#C+ 10?' 1'' @ ?' C1#.+!' #.=>D' %>KP <0D>.' ' +1' J +@@1%D'+@>' 0,>?+ +#.>' 1''+@>'H 0=D1B' '.1B' .>D>. C!' +@1#=@!'#0<,< % 0=%E!' <?' +@>' A1A> ?' 0+>.>?+?' J>.>' +11' C%1?>%E' C100>C+>D!' $E' B<.. <=>!' J +@' +@1?>' 1'' +@>' .1E<%' '<B %E' 1'' <A%>?' 0D>.' +@>?>' C .C#B?+<0C>?!' +' J<?' ?1B>J@<+' D1#$+'#%' J@<+' C1#.?>' 10?<%,1' ?@1#%D' $>' D .>C+>D' +1' A#.?#>' 0' +@>' A.>?>0+' >K =>0CE' @<+' A.#D>0+' C1B B<0D>.!' @1JP >,>.!' '1#0D' +@>' 0>J' B10<.C@' +11' ?+.10=' 0' +@>'<''>CM

,))5 5') A,)''0% A '%' A,' ($ ' $) ,') ' % ' ,', %3 ' ,1 '4C' A '3 3 %' 0'%' 5,.,>' A $5' 4 ' 5 (,5 5!' T1 , ' ,)' A%)' '%1$ ' A ')(A' ,.!' .,,,!' (A!'FF,,,!

' '

+ 10?' 1'' @ ?' A>1A%>' +1' $>' D ?+#.$>D' <+' A.>?>0+' %%'
+@<+' 01J'.>B< 0>D' '1.' >.D 0<0D!' +@>.>'1.>!' J<?' +1'
.>?+' C10+>0+>D' J +@' +@>' A1??>?? 10' 1''+@>' ?+.10=' A1?+?'
A%>D=>D' '1.'+@>' .> B$#.?>B>0+' 1'' @ ?' >KA>0?>?' 0' +@>'
J<.!' <0D' +1' B<H>' ?#C@' #?>' 1'' +@>' C1..>?A10D>0C>'
J@ C@' +@>' %<+>' C<BA< =0?' @<D' 1A>0>D' +1' @ B' 0'
<%<$. <!' +@<+!' J@>0' +@>' + B>' <.. ,>D' '1.' <C+ 10!' @>'
B =@+' <C+' J +@' >''>C+ T

>.D 0<0D ?' C10D#C+' +@.1#=@' +@>' J@1%>' 1'' +@>'
+<% <0' J<.' @<D' =.><+%E' >0@<0C>D' @ ?' .>A#+<+ 10' '1.'
?<=<C +E' <0D' A.#D>0C>' +@.1#=@1#+' #.1A>' +' <'P
'1.D>D' <' B1?+M<D,<0+<=>1#?' C1BA<. ?10' J +@' +@<+' 1''
@ ?' . ,<%' @<.%>?' !' J@1?>' ,>.E' ' .?+' <C+' @<D' $>>0'
+@>' ?#..>0D>.' 1'' ?1' BA1.+<0+' <' +>.. +1.E' <?' 1#?P
? %%10' @>' C10?+.#C+ 10' 1'' +@>' +.><+E' .>%<+ 0=' +1'
+@ ?!' 0D>>D!' %< D' +@>' A<0 ?@' B10<.C@' 1A>0' +1' +@>'
BA#+<+ 10' 1''<.+ ' C>' #+' +@ ?!' <+' %><?+!' D D'01', 1P
%>0C>' +1' +@>' A1% + C<%' B<K B?' 1'' +@>' <=>!' <0D' 10%E'
B<D>' @ B' .>=<.D>D' <?' +@>' B1.>' ?@.>JD' <0D' ?#$+%>'
D A%1B<+ ?+L' J@ %>!' 10' +@>' 1+@>.' @<0D!' @>' <AA><.>D'
$>'1.>' +@>' J1.%D' 0' +@>' BA1? 0=' <++ +#D>' 1''+@>&D>MW'
'>0D>.' 1''+@>' C@#.C@!' <0D' 1''+@>' . =@+?' 1''@ ?' 0"#.>D'
H 0?B<0' ?' 0'%#>0C>' @<D' $>>0' C%><.%E' D ?C>.0 $%>'
0' >,>.E' 1A>.<+ 10!' 1'' B1B>0+!' J@>+@>.' C , %' 1.' B % P
+<.E' >' @<D' $>>0' B1?+' <C+ ,>!' +@.1#=@' @ ?' <B$<?P
?<D1.?' <+' >01<!' >0 C>!' <0D' 1B>!' 0' ?+ .. 0=' #A'
+@>'=.><+' +<% <0' C10'>D>.<CE!' J@ C@' >,>0+#<%%E' $.1H>

G%! 4''' 04' ./ /!)').(' - '!'C'!' ./ /).(C'' ()'!?
=' '*'++,'+++ - '!')'' D%' ./ 08')''' 4(6' ' =' '
04' ./ 08')'' =++,'*'+, *'8'

+@>' A1J>.' 1'' S 0=' @<.%>?L' <0D' @ ?' .>A.>?>0+<+ 10?' @<D' +>0D>D!' <?' B#C@' <?' <0E' 1+@>.' C<#?>!' +1' <%<. B' +@>' "><%1#?E' 1'' '1.G<!' +1' ' K' +@>' ,<C %%<+ 0=' A1% + C?' 1'' %>K<0D>.!' <0D' +1' F# CH>0' +@>' C<#+ 1#?' <0D' D %<+1.E' B1,>B>0+?' 1'' >0 C>' >' @<D' ?@1J0' >F#<%' , =1#.' 0' <C+ 10L' <0D' C10+. $#+>D' B< 0%E' +1' +@>' ?#CC>??' 1'' +@>' J<.' $E' @ ?' 1A>.<+ 10?' 10' +@>' ? D>' 1'' 1#?? %%10!' <0D' ?+ %%' B1.>' 0' <%<$. <' 0' +@>' %<++>.!' 0D>>D!' @>' @<D' 01+' %<, ?@>D' <0E' >K+.<1.D 0<.E' >KA>0D +#.>L' <' C .C#B?+<0C>' A<.+%E' <++. $#+<$%>' +1' +@>' ?+<+>' 1''+@>' ' 0<0C>?!' ?>,>.>%E' +<K>D!' <?' <%.><DE' 01+ C>D!' $E' +@>' .<0<D 0>' J<.!' <?' J>%%' <?' $E' +@>' 1A>.<+ 10?' 0' 1#?? %%10!' $#+' 0' A<.+!' <%?1!' +1' @ ?' @<$ +#<%' '.#P =<% +E!' J@ C@!' J +@' <' ,>.E' D ''>.>0+' ?A . +' '.1B' +@<+' 1''@ ?' %%#?+. 1#?' C10?1.+!' <%J<E?' ?+ 0+>D' +@>' B><?#.>' 1''@ ?' ?#AA% >?' +1' +@>' $<.>' >K =>0CE' 1''+@>' 1CC<? 10' 1.+#0<+>%E!' +@>' =>0 #?' 1''+@>' .><+' <A+< 0' J<?' ?1' '.# +'#%' 0' .>?1#.C>?!' <?' +1' ?#AA%E' >,>.E' D>' C >0CEL' >0<$% 0=' @ B' +1' <CC1BA% ?@' ?#C@' $. %% <0+' .>?#%+?' <?' >''>C+#<%%E' C10C><%>D' <0E' A1,>.+E' 1'' A.>A<.<+ 10' 10' +@>' A<.+' 1''@ ?' B<?+>.

@>' +<% <0' J<.?' J>.>' 1''? =0<%' BA1.+<0C>' +1' +@>' A<0 ?@' 0<+ 10' >'1.>' +@<+' + B>!' +@>E' @<D' $>>0' C11A>D' #A' J +@ 0' +@>' 0<..1J' % B +?' 1''+@>' A>0 0?#%<!' #0 0?+.#C+>D!' <0D' +<H 0=' % ++%>' 0+>.>?+' 0' +@>' C10P C>.0?' 1''+@>' .>?+' 1'' #.1A>' ' 0>J' J1.%D' J<?' 01J' 1A>0>D' +1' +@>B ' @>E' J>.>' +<#=@+' +1' 0 ><?#.>' +@> .' 1J0' ?+.>0=+@' $E' C1%% ? 10' TJ +@' 1+@>.' ADJ>.?' 10' <' C1B B10' ?C>0>' 1''<C+ 10L' <0D' ?#CC>??' 0?A . 0=' +@>B' J +@' <' =.><+>.' C10' D>0C>!' ?>>B>D' +1' $>CH10

>'1.>' +@>' >0D' 1'' +@>' J<.!' A.>A<.<+ 10?' J>.>' B<D>' '1.' >B $1DE 0=' <' 0<+ 10<%' B % + <!' J @ C@' ?@1#%D' +<H>' +@>' A%<C>' 1'' +@>' <0C >0+' @>. B<0D<D ' < J?' J>.>' A<??>D!' .>=#%<+ 0=' +@>' >F# AB>0+' 1'' >, >. E' 0P D , D#<%' <CC1. D 0=' +1' @ ?' A. 1A>. +E ' ' B<0 ?' <. B?' J>.>' D>C%<.>D' 01+' % <$%>' '1.' D>$+!' >, >0' +1' +@>' C. 1 J 0L' <0D' ?B +@?' <0D' 1+@>.' <.+ ' C>. ?' J>.>' .>?+. C+>D!' #0D>.' ?>, >.>' A>0<%+ >?!' '. 1B' J 1. H 0=' +@>B' #A' 0+1' 1+@>.' <.+ C%>? '' 0' 6 : !' <' C>0?#?' J<?' +<H>0' 1'' <%%' A>. M

A ' %)(,)' 3%),% 5 ' B , ' B ' % ') 5' % ' A ' 1 5 1' 0 ' A ' 13 ' %)5'0,), A' 0' A , ' 4 %5 ' $ 5' A ' B 5 ',)' A ' 1%)%' 1)' 0'BA,(A' A C'B ' . C' %5 ,!' Y' 8, 3%) [' %C ' ,.i j' Y' 3$)(,1' 1%', ' 2$%1' (,1' %5 $ ' 3 ' A 1' 4 ., % ' A%4, ' ' ($1' 1$(>'),4$!Z P8, !' ,4!' FF,,!' (%3!' F .,,!X %)5 .%' !) ,(' A ' A ' B 5' 8' (%' 3%5% [' %' A ' 3 ($,%' B %3)' 0' A ' 3%), A' 5, ' ,)' A ' B 0A' ( ) $ C! J C ' 5 ' *% , %' C')' 1!' ,,!' 3!' D !

4'$!'&6'4*'0./' /:)(;/.' /, ''1L3B;(' 2I 13H13P

A ' 0 1 ' 0' A ' 5,;)%)(' 5% 5' % %G)%' 3!' I A' DH6',' F 1 C'3 (, ' 1' 3 (,0C,)'' A ' %33 ,) 1) ' 2$, 5'0 ' %(A',)5,.,5$%!

1)'' A ' ,13 . 1) ' ,) 5$(5 1 BA%' % , '1%C' 4 ' 1) ,) 5' A%' 0' '%),G,)'' %)5' A $'A C' %,),)'' %' 1% ' (3 ' 0' A %.C>% 1 5' (%.% C' %1 $) ,)'' ' B) C>0,. 'A$); 5 5!' A ')$14 ' 0' 1)>% >' % 1 ' A%5' 4)' ' % C' 5$(5 ,)' A ' @,)'5 1' 0' % 'C % ' ,)' ( ) 2$)(' 0' A ' F($,. '5 ; 1%)5' 0 ' A ' ** #!#&' ,)' A ' , A'B% ! #$,)($%')% '5 ' ., 5 ' !

5,)%)(' B ' % ' 3% 5' 0)($ %',)' A 4 5 0A ' BA,(A' A%5' $50 5' ' % C'0 1' A ' 3 0)(' . C' ') % C' 3.)' 4C' A ' 3%),% (' '1$!' A, ' A%5' 4)' (% , 5' ' $(A')' A ' A% ' BA, ' , ' B%') % C' ,13 ,4 ' %((5,)'' ' 1% >' 5 G' ' 1 $) 'U)' ' B . ' A $ %)5' (%.% C')' A ')' ,1 ' A% ')$14 ' ($ 5'4 '3 ; .,5 5' B, A' 1$!' P8, '5 ' ' C ' *% !' !' (%3!' (FFF,.!X' Z' ' 3 2$ ' , %' ' ' P0, ' $'% [' %C ') ' 0' A '3 %' 1 %, ; (% ' %5. ,)'' ' A, ' ., 'Y' 1$C' 3 %1) ' ' 3 5 ,%)')$>' ' C) ' %') 4 G% 5' %' (%$,% 2$ ')' ' $ '%$ ' ' ' $,5% ,% ' F (,(, '1, , %' 5 ' 2$ ')' ' , 13 ' 3% %5 ')$ %')%(,)'5 ' 3%0,% A%' % >' (%) %5 ' ' %)' 0 1% ' <[', ' B%' 5 5' A%') ' 3)' ,)' A ' @,)'5 1' A $5' 4 ' % B 5' ' @ 3' %' 1$ '$) ' A ' B) 5

?10? C<A<$%> 1'$><. 0=<.B?L <0D $E<0 1.D 0<0C> D<+>D <+ <%%<D1% D! >$.#<.E 770D! + J<? A.1, D>D +@<+ 10> 1#+ 1' >,>.E +J>%,> 0@<$ +<0+?! $>+J>>0 +J>0+E <0D '1.+EM' ,> E><.? 1'<=>! ?@1#%D $> >0% ?+>D 0 +@> ?>., C> 1'+@> ?+<+>! J@>+@>.' '1.' '1.> =0 J<.! 1.' +@> ?#AA.>?? 10 1' D ?1.D>.? <+ @1B> @> .>P B< 0 0= >%>,>0 J.> % <$%> +1 $> C<%%>D 10 0 C<?> 1'#.=>0+ 0>C>?? +E @>?> .>C.# +? J>.> +1 $>[A< D D#. 0= <C+#<% ?>., C>! <0D >KC#?>D '.1B +<K>?L +@> 10%E %>=<% >K>BA+? J>.> +@> C%>.=E! @ D<%=1?! <0D A<#A>.? =>0>.<% .>, >J <0D 0?A>C+ 10 1' <.B? J>.> +1 +<H> A%<C> >,>.E E><.! 0 +@> B10+@? 1' <.C@ <0D >A+>B$>.! J@>0 A. G>? J>.> +1 $> <J<.D>D +1 +@1?> $>?+ <CC1#+.>D! <0D B1?+ >KA>.+ 0 +@> #?> 1' +@> .' J><A10? #C@ J>.> +@> "#P D C 1#? .>=#%<+ 10? $E J@ C@ >,>.E C + G>0! J +@1#+ $> 0= J +@D.<J0 '.1B @ ? .>=#%<.' 1CC#A<+ 10! J<? =.<D#<%%E +.< 0>D #A '1.' +@> 0<+ 10<% D>'>0C>L <0D J@ C@! J +@1#+ +@> 1AA.>?? ,> 0C#B$.<0C> 1' <0#B>.1#? ?+<0D 0= <.BE! A%<C>D +@> J@1%> >''>C+ ,>

%A % <%)5 A%)) 4$ ((,% ,(%)5 B 1) A $5 4% B 5 A $ 0 1$,) A %55 ! A 5,(B)0 (5B, A A $ 1 ,' $ A @,)'A,1 0 ,)' A F; %13 0 ( )0 1, C A 1! C A %)%4 3 (%$,) A 4 5 0 3%), A A)') 5 A $'A $ $ 3 B% 5 , %)(,) (5, %)5 A 1$ ( ) ,') 5 A A$14 %)5 %33 3,% L 00,(0 5 $5' C % 5) C 0

F3 %,)! A %)5 ,; 1,% 3 ., ,) % '1%,> (% 5 C) 0 ! / J ! % 1%)K BA,1 ,(% > #&) . :$G1%) 5K > 0% %(A ( ) %,) %(1,(%5.); $ A B,)' A F(,. ,; ' $B, A BA,(A A 5,(%'%,) 1$ B%)0 (5 % % % A (0 A, ,3 !K ,')! A 3% %' , F %(5 ,) > (K '%) . ,) 0 A 3%;), A . , . !,! 3! !

'1.C>' 1'' +@>' C1#0+.E!' A.1BA+' <0D' ' +' '1.' <C+ 10!' <+' +@>' D ?A1?<%' 1''+@>' =1,>.0B>0+!' J@>0>,>.' +@>' A#$% C' =11D' ?@1#%D' C<%%' '1.' + T

L' '%' (3C' 0' A ' 5,)%)(' % ' %@)' 0 1' A ' % (,,. ' 0' ,1%)(% <' %3!' 1!' 5(' %' !' (%5' 5 ' 8, !' 1!' .,!' 3)5!' F,,,!

9 A)' %)(, ' ' BA ' B% ' 5 ,) 5' ' 0 ' A ' 00 (' 0' A, ' (% 0$' 1, , % C' 5, (,3 ,) ' 4 A 5' 5$,)'' A, ' 5) ,)' ,)' 3%,)' ,)' A ' 4 ',)),)'' 0' A

0 B,)'' ( ) $ C' ,3 ,)' 'B, A' (% (' 5 B)' $3)' A ' (A,)' % ' % 1 5' B, A' B 5 '% ' A , ' ,5 ' A ' , ' %,5' ' A%. ' (, 5' $ ' Y' ' 4,)%.) $ %5%' 3%,,% ' 2$ ' 3% ' C' (,%' ' A 14 ' % 1%>' 5 -[' P !' !' ,($ ' * % ' >' 1 %4 ' ,4!' , P/')' F(%1%L' ,)') ' $)B AC' 0'%' %3 ;) J '%)' , %!

5 ‘

‘ ‘ ‘ ‘ ‘ O‘ ‘ ‘

5 ‘ / ‘ ‘ 5 ‘

‘ C.>D +‘ <0D‘ <#+@1. +E‘ J@ C@‘ +@>‘ <?+ %<0‘ ?1,>.> =0?‘ >?+<$% ?@>D‘ $E‘ +@>‘ ?#CC>??‘ 1’‘ +@> .‘ <.B?U‘ J>.>‘ =.><+%E‘ .< ?>D‘ $E‘ +@>‘ B<+. B10 <%‘ C100>K 10?‘ J@ C@‘ +@>E‘ ‘1.B>D‘ ‘1.‘+@> .‘C@ %D.>0‘ @ ?‘ J<?‘ +11‘ BA1.+<0+‘ <‘?A. 0=‘1’‘+@> .‘A1% CE‘+1‘ $>‘ A<??>D‘ 1,>.‘ 0‘ ? %>0C>‘ @> .‘ ‘<B %E‘ C10? ?+>D‘ 1’‘ 10>‘ ?10‘ <0D‘ ‘1#.‘ D<#=@+>.?!‘ J@1B‘ +@>E‘ C<.>‘#%%E‘>D#C<+>D‘ 0‘ <‘ B<00>.‘ $>‘ ++ 0=‘ +@> .‘ @ =@‘ .<0HL‘ <0D‘ J@1‘ .>A< D‘ +@> .‘ ?1% C +#D>‘ $E‘ >K>BA%<.E‘ ‘ % <% 1$>D >0C>!‘ <0D‘ +@>‘ ><.%E‘ B<0 ‘>?+<+ 10‘ 1’‘, .+#>?‘ .<.>‘>,>0‘ 0‘ <‘A. P ,<+>‘ ?+<+ 10 T‘ @>E‘?>>B‘ +1‘ @<,>‘ 0@>. +>D‘ B<0E‘ 1’‘+@>‘ F#<% + >?‘ J@ C@‘ D ?+ 0=# ?@>D‘ +@> .‘ %%#?+. 1#?‘ B1+@>.L‘ =.><+‘ D>C1.#B‘ <0D‘ D =0 +E‘ 1’‘ B<00>.?!

L‘ A‘3,)(!)% %4 ‘ A‘ 5 ‘5%$'A ‘B%‘4 1‘%‘ $ 0,% ‘ (.! ‘ D/‘‘ A ,‘ ( )5‘(A,5‘%)5‘) C‘)‘?$%)‘ ,)(‘ 0‘ $,% ‘ B% ‘) ‘ 4 1‘ $) ,‘ ,‘A‘ C % ‘ % ‘ ?$) ‘ A‘ D/I‘ %‘ ., ! A% ?$%)%‘ BA 1‘ A‘ 2$)‘ $ 5‘3%C0$ C‘ ‘(%‘A ‘Y‘1 ; A >,)>%B [‘&"# ‘0 1A ‘ ; 14%)(‘ ‘ ",)’‘ 5,)%)5K‘ 1 A ‘B%‘4 1‘%‘ 5 ‘ (,

A‘ D/H! A% % ,%B%‘4 1‘ %‘ * 5 .%‘ DI <‘ %)5‘ 0,% *% %,)%‘ A‘0,0A‘%)5‘ % ‘(A,5‘ % ‘ (% %5‘8)% ‘ (! 6A‘ DI6! A‘5%$'A ‘ % ‘ ,. 5‘ ‘ ,')<4$‘ A ,‘4 , ,%)‘5 ; ,), ‘B ‘($5 5‘B,A‘5 1 ; ,(‘ %00,(,)‘0 1‘ BA,(A‘ C; % C‘($5‘%00 5‘) ‘ 0$' ! *% ; 4%+% ‘)% ‘ 5‘ 8)%)5 ‘ ‘ (! 1$!

C1B$ 0>D J +@ <.D>0+ ?>0? $ % + >? <0D <0 #0<''>C+>D A >+E! J@ C@! <+ %><?+ 0 +@> >%D>?+ <0D '<,1#. +> D<#=@+>.! ?<$>%%<! J<? #0@<AA %E ?+.10=%E + 0C+#.>D J +@ $ =1+.E @>E C1#%D 01+! 0D>>D! A.>+>0D +1 +@> . B1+@>. ? C1BA.>@>0? ,> B 0D <0D +<%>0+ '1. $#? 0>??! <%+@1#=@ +@>.> ?>>B ? +1 @<,> $>>0 01 D>' P C >0CE 0 +@>?> .>?A>C+?L 1.! ''?1! + J<? B1?+ >''>CP +#<%%E ?#AA% >D $E +@> . >KC>%%>0+ >D#C<+ 10 T

 @<,> <%.><DE 01+ C>D +@> B<.. <=> 1'' +@> 5. 0P C>?? ?<$>%%< J +@ %10?1! +@> @> . 1''+@> 51.+#=#>?> C.1J0! 0 6: @ ? @<D $>>0 ><=>.%E D>? .>D $E @>. A<.>0+?! 01+ 10%E '1. +@> A1?? $%> C10+ 0=>0CE! J@ C@ + <''1.D>D! 1''$. 0= 0=' +@> ,<. 1#? B10<.C@ >? 1'' +@> A>0 0?#%< #0D>. 10> @><D! -< D>? =0 J@ C@ +@>E 0>,>. J@1%%E %1?+ ? =@+ 1'!* $#+ '.1B +@> J ?@ +1 C10C % <+> < '1. B D<$%> 0> =@$1#.! J@1 A1??>??>D ,<. 1#? B><0? 1'' <001E<0C>! J@ C@ @> @<D ?@1J0 01 .>%#C+<0C> +1 >K>.+ @> .> =0 0=' A. 0C>! /1@0 ! < $1%D <0D C.<'+E A. 0C>! @<D 0>,>. '1.=1++>0 @ ? <0C >0+ F#<..>% J +@ +@> A<0 ?@ ?1,>.> =0? 0 ?#AP A1.+ 1''+@> . . ,<% /1<00< >%+.<0>"<! 1. /1<00< +@> #0! <? ?@> J<? =>0>.<%%E C<%%>D 0 +@> <?+ % <0 C1#.+! <'+>. ?@> @<D +<H>0 +@> ,> % /1@0! 0 1A>0 C10+>BA+ 1'' +@> +.><+E 1'' %C<0+<.<! <0D 0D>>D 1'' <%% B10<?+ C .#%>! @<D 01+ 10%E .>B1,>D @ ? .>%<+ ,> '.1B +@> C10,>0+ 1'' <0+< %<.<! $#+ @<D A>.B ++>D @>. +1 <??#B> < .1E<% ?+<+>! <0D ?#$?C. $> @>.?>%'

L A) C F(3,) A 0 $)% (( ) ,(,, 5. 3 5 1% @ B% A% %00 5 5 4C ,) % ,0 1$ 4 ,13$ 5 A)0%) % ? %))% BA $); ,)5 5 4 5, C,)0, 1, C!

Q! +@ I #>>0 R @ ?>BA+E 0?#%+@><CC1BA<0 >D J +@ B1.> ?>. 1#?>''1.+?+1 '1.B ?#C@ <'1.> =0 <%% <OC> '1.+@> % $>.<+>D A. 0C>??<? ?@1#%D ?>C#.> @>.+@> ?#AA1.+ 1'?1B>.B B1.>A1J>.'#%+@<0@ ? 1J0! <OD >0<$%> @>.+1 .>0>J+@> ?+.#==%> '1.@>. 0@>. +<OC> J +@ $>++>.C@<OC> 1'?#CC>?? T @>?> '%<=.<0+A.1C>>D 0=?@<D A.1,1H>D+@> <DB10+10?1'+@> 1B<0 ?>>! <OD @<D '1.B>D+@>+1A C!&<? B<E $> $>% >,>D! 1'.>A><+>D.>B10?+.<OC> '.1B+@> C1# +1' <?+ %>! +@1#=@ 0>''>C+#<%%E Z

+?>>B>D A.1$<$%> +@<+ +@> #0 10 1'+@> 5. 0C>?? 1' ?+#. <? J +@ +@> @> .1'51.+#=<%! <? 1. = 0<%%E A.1, D>D $E +@> +.><+E 1' %C<0+<.<! J1#%D ?1 '<.D>0+ 'E +@> 0+>.>?+? 1'+@> .>?A>C+ ,> A<.+>? <? +1.>B1,> <%% '#.+@>.C<#?> 1' D ?F# >+#D> @> 0>J $. D> J<? .>C> ,>D - 1, 770D! 6: * 0 51.+#=<% 0 <?A . + J@ C@=<,> C1.D <% <??#.<OC> 1'+@>?> '. >0D%E .>%<+ 10? '1.+@> '#+#.>! <0D +@> C1#.+1' ?$10 C>%>P $.<+>D +@> <#?A C 1#? 0#A+ <%? J +@ <%% +@> =1.=>1#? B<=0 ' C>OC> '1. J@ C@! <+ +@ ? A>. 1D 1'+? ?#CC>??P '#% >0+>.A. ?>! + J<? D ?+ 0=# ?@>D <$1,> >,>.E 1+@>.C1#.+ 0 @. ?+>0D1B Z

)/ /!/)4 6'4*5/0 9//8!(8(0/ (! ('))) 45/ *(%!0/ (5/! /=%4 45/ ') 05/)4(! ! ') @45/ /+< */ /)4 ' .:A '0 05/ 9'0 %0%' < :* */ =: 45/ $(!4%&%0/ . /. '0 05/ 5' , /.) 0)& / =/00/.)/00 '4 45/ !8/ '&/ (0+4:7/ &54 /6 ./ / *'. ./ 04 4(6 , %04 ++ 0 ./,(4/.4(450 4(8*') !/&'!.4(95*5 '45/! (!/C

A B $00,(,) ,') %)(,)%((\$ %(C! C)% *% ,(% 1! ,,! 3! / I !

4)04!%*4 ()0!/ '4)&4(450 6'44/! 9!44/) 94545/ D%//)0 (9) 5') . 04 /+04) 45/ '!< /6 ./ *'. ./ 04 %= 0%8!'

0 /./ 04(!/ ./ \$(!4%< &' +1B , A @>

%10?1 ?' D><+@!' <' '>J' B10+@?' <'+>.' +@ ?' >,>0+!' @1J>,>.!' $% =@+>D' +@>' '< .' @1A>?' J@ C@' @<D' $>=#0' +1' 1A>0' 1'' <' B1.>' '. >0D%E' '>>% 0=' $>+J>>0' +@>' +J1' C1#0+. >?' ?' #0'1.+#0<+>' J D1J!' #0<$'>' +1' >0P D#.>' +@>' ?C>0>?' 1'' @>.' ?@1.+M% ,>D' @<AA 0>??!' ?110' J +@D.>J' 0+1' @>.' 1J0' C1#0+.E' +1' ?>>H' ?#C@' C10?1P %<+ 10' <?' ?@>' C1#%D' 'OD' 0' +@>' $1?1B' 1''@>.''<B %E' @>.>!' <$<0D10 0=' @>.?>%''+1' +@>' B>%<0C@1%E' .>=.>+?' +1' J@ C@' @>.' ?>. 1#?' <0D' A>0? ,>' +>BA>.' 0<+#.<%%E' D?A1?>D' @>.!' ?@>' D>,1+>D' @>.' @1#.?' +1' J1.H?' 1'' A>+E' <0D' $>0>,1%>0C>!' .>?1%,>D' +1' >0+>.' 01' B1.>' 0+1' >0=<=>B>0+?!' J@ C@' @<D' +@.1J0' ?1' D<.H' <' C%1#D' 1,>.'+@>' B1.0 0=' 1''@>.'% '> T

0' S 0=' /1@0 ?' D><+@!' 0' 6:8!' +@>' C.1J0' 1'' 51.+#=<%' D>,1%,>D' 10' B<0#>%!' +@<+' >0% =@+>0>D' B10<.C@!' J@1' @<D' +@>' =%1.E' 0' +@>' ,>.E' C1BB>0C>P B>0+' 1'' @ ?' .> =0' 1'' ?1%, 0=' +@>' =.<0D' A.1$%>B' J@ C@' @<D' ?1' %10=' A>.A%>K>D' +@>' J1.%D!' 1'' <0' #0D ?P C1,>.>D' A<??<=>' +1' +@>' <?+' @ ?' A. 0C>' @<D' C10P C> ,>D' <' A<?? 10' '1.' +@>' E1#0=' <0D' $><#+ '#%' ?<$>%%<' D#. 0=' @>.' $. >'' .>? D>0C>' 0' ?$10L' <0D!' ?110' <'+>.' @ ?' <CC>?? 10' +1' +@>' +@.10>!' @>' D>?A<+C@>D' <0' >BP $<??E' +1' +@>' A<0 ?@' C1#.+' 0, + 0=' @>.' +1' ?@<.>' +

A' $'$ ' A, ,%)' $' A' %1' F C' 0' 3 (%; % ,%' C' $ %' F3)5' A% 0' % (' A' %1' '%)' '%1' 0' 5 G)'0 ,' 3%' ')' A ' C%' (A,.% C' J'%' A', V 0' 5' . , 'BA,(A' (' ,F 1) A If A' ,)' ' %)5' A' ,@ ' BA,(A' 3 3% %,)' %)5' %F 5' A' B, ' A' *% ,,%)' %5 3 5' 0 1' A' 0' A' 1 ' 0,), A 5' % , ' %)5' 3%), A' %4 ! % ,0,(' ,)' %)(')' %)5' $ N$,%' 8, '5' 8)%)5' %)5 ' *% , ' %)5' $'%!' ' *% ,(' 1f .f 0 f If JR P $ 3%' $'$ %7' 1!' ,,!' 3f' 4% (%' C '5' %')' 1!' D6 ' ' 2!X 9 ' ' A $'A; ,,!' 0 !' !

J +@‘ @ B ‘ #+‘ +@>‘ A. 0C>??!‘ J>DD>D‘ +1‘ +@>‘ B>B1.E‘ 1’‘ @>.‘ ><.%E‘ %1,>!‘ D>C% 0>D‘ +@>‘ A.1A1?<%?!‘ 01+J +@P ?+<0D 0=‘ +@>E‘ J>.>‘ ?+.10=%E‘ ?>C10D>D‘ $E‘ +@>‘ J ?@>?‘ 1’‘@>.‘ A<.>0+?!‘ J@1!‘ @1J>,>.!‘ J>.>‘ #0J %% 0=‘ +1‘ C10P ?+.< 0‘ +@> .‘ D<#=@+>. ?‘ 0C% 0<+ 10?‘ 10‘ ?1‘ D>% C<+>‘ <‘ A1 0+!‘ +.#?+ 0=‘ A>.@<A?‘ +1‘ +@>‘ >’’>C+?‘ 1’‘ + B>!‘ <0D‘ +@>‘ A>.?>,>.<0C>‘ 1’‘@>.‘ .1E<%‘ ?# +1. T

0‘ +@>‘ B><0‘ J@ %>!‘ +@>‘ <+@1% C‘ ?1,>.> =0?‘ J>.>‘ 1CC#A >D‘ J +@‘ 0>=1+ <+ 10?‘ ‘1.‘ +@>‘ ?>++%>B>0+‘ 1’‘ +@>‘ 1+@>.‘ B>B$>.?‘ 1’‘+@> .‘ ‘<B %E‘ @>‘ <B$+1#?‘ ?C@>B>?‘ 1’‘ @<.%>?‘ ‘ >?+<$% ?@>D‘ <‘ C1B B#0 +E‘ 1’‘ 0+>.>?+?‘ <B10=‘ +@>‘ =.><+‘ #.1A><0‘ ?+<+>?!‘ ?#C@‘ <?‘@<D‘0>,>.‘$>‘1.>‘>K ?+>D!‘ 1.‘ <+‘ %><?+‘ $>>0‘ #0D>.P ?+11DL‘ <0D‘ +@>‘ 0+ B<+>‘ .>%<+ 10?‘ +@#?‘ 0+.1D#C>D‘ 0<+#.<%%E‘%>D‘ +1‘ 0+>.B<.. <=>?‘$>+J>>0‘ +@>‘A. 0C A<% A1J>.?!‘ J@1‘ #0+ %‘ +@ ?‘ A>. 1D‘ ?>>B‘ +1‘ @<,>‘ $>>0‘ ?>,>.>D‘ <%B1?+‘ <?‘ ‘<.‘ <?#0D>.‘ <?‘ ’‘ 1C><0?‘@<D‘.1%%>D‘ $>+J>>0‘+@>B ‘ @>‘ A<0 ?@‘ B10<.C@?!‘ 0‘A<.+ C#P %<.!‘ @<D‘ .<.>%E‘ =10>‘ $>E10D‘ +@>‘% B +?‘ 1’‘+@>‘A>0 0P ?#%<‘ ‘1.‘ +@> .‘ ‘<B %E‘ <%% <0C>?‘ @>‘ 0>J‘ C10‘>D>P .<CE‘ 0+1‘ J@ C@‘ A< 0‘ @<D‘ >0+>.>D!‘ 01J‘ 1A>0>D‘ +@>

L‘ N$,%‘8, ‘5‘8)%)5 ‘ 1!‘ .!‘0 !‘ /I!‘ I !‘ J‘* ‘ 8, ‘5‘ $‘%‘ 1!‘,.!‘3!‘ H6!> J !‘ % C‘ 3$‘ 3, !‘ 3!‘(F.,! % C‘,)‘%‘ ‘B ,)‘%‘ A‘ (‘ 0‘ DH‘ A$‘ 3 %@‘ 0‘A‘ ,)(‘ %4 %K‘0%,A; 0$‘% %(A1)‘ ‘A‘A$ 4%)5K‘ 1 1 C‘Y‘ ,%‘0,,,‘A$+$‘0 > 1,) ‘ ,)‘ %4+,(,)5,‘ ($)5,‘)$3,,‘ ( ) %) ,%!‘ %) %‘ ‘ +$‘ 1 5 ,%‘ %) %‘ .,5$%,

'04 4'0‘ %4)/ 6/)0‘ 8(04 6'7 !4‘ 6(!4/6 *(6/./!4‘)/* '%4‘ D%*D%'6 ./&%04',/!4‘ /%7) 0 0/0/ ,& 0D%/ 4‘ 6'*/!'7 ,4‘ %4 0**(04 8 4/ 0**(! 04 / /*4'‘ % %4‘ !%=(!/8/!4%!7 ='4%!‘ D%').(*%)D%/ ./ %&'‘ 45' '6(0/!6( )4/+4%!‘ $'7 !/)4%6 4'6/)‘ ' D%').(8!/*7 =%0‘ ,/%4‘ ('* 6%!‘) /*4/7 4%!‘ R&/4 '6'‘ %46'6 ,/07 4!‘ !/&0 66')%/ 0 %+(!/6A‘ 8‘ * ++ ‘

J<E +1 B1.> .>B1+> C100>K 10?! J@ C@ J>.> D>?P + 0>D +1 >K>.C ?> < A>.B<0>0+ 0'%#>0C> 10 +@> '#P +#.> A1% + C? 1'' #.1A> + J<? J@ %> @<.%>? J<? J<?+ 0= @ ? + B > <+ <A%>?! +@<+ +@> B<.. <=>? J>.> <..<0=>D $>+J>>0 +@> .1E<% @1#?>? 1'' A< 0 <0D #?+. <! $E J@ C@ +@> J> =@+ 1'' +@>?> =.><+ A1J>.? J<? +@.1J0 0+1 +@> ?<B > ?C<%>! <0D +@> $<P %<0C> 1'' #.1A> #0?>++%>D '1.+@> =.><+>.A<.+ 1''+@> '1%%1J 0= C>0+#.E T

@> +.><+E A.1, D>D! +@<+ 5. 0C> /1@0! +@> @> .' 1'' +@> A<0 ?@ B10<.C@ >?! +@>0 0 @ ? > =@+>>0+@ E><.! ?@1#%D $> #0 +>D J +@ +@> 5. 0C>?? <.=<.>+! D<#=@P +>.' 1''+@> BA>.1.' <K B % <0L <0D +@<+ +@> .C@P D#H> 5@ % A! @ ? ?10 <0D @> .! <0D ?1,>.> =0 1''+@> 1J 1#0+. >? 0 @ ? B1+@>. ? . =@+! ?@1#%D B<..E /1<00<! ?>C10D D<#=@+>.' 1'' >.D 0<0D <0D ?<P $>%%<L 01 D1J.E J<? +1 $> .>F# .>D J +@ > +@>.' A. 0C>?? '

0 +@> C1#.?> 1''+@> '1%%1J 0= E><.! <..<0=>B>0+? J>.> <%?1 C10C%#D>D '1.+@> B<.. <=> 1''+@> E1#0=>?+ D<#=@+>.' 1''+@> <?+ % <0 ?1,>.> =0? J +@ < A. 0C> 1''+@> .1E<% @1#?> 1'' 0=%<0D! +@> ' .?+ >K<B A%> 1''+@> H 0D! $>% >,>! '1.' B1.> +@<0 < C>0+#.E >.D M

L N$,%8, 1 .!0 ! ! 4 %B% ,) % C 5 ( )5 5L)
] N$,% 1! . ,4!,,! (! .! A 0% A K ,5 !
RJ % 8, ! 5K 3%') A , A , >
1! .,,,! 3! ! &%33 3 ,% 5 A A , >
! 4 , . A ,) ,)> %33%) 0 *% , B% 0, T %)(0 $(A%F1,) ,)(A% (% 5 0 A)0%)) 8);
0? A) 0 :%$) $@ 0 %); C %0 B% 5 8) C) (% B, A)% *) %)G% ((%,) 0 A, 1% ,%' B, A
5%$'A 0 A * $? A) 0 :%$) K 5%$'A II
! / 0 1 BA 1 #$) %; B% 3 0 5C ,) ,1,%,)

0<0D @<D C#%+ ,<+>D +@> =11D J %% 1'' >0.E !' 0' +@> @1A> 1''D.<J 0=@ B' 0+1' +@>' C10'>D>.<CE'<=< 0?+' +@>& .>0C@' B10<.C@'L' <0D' 0' +@ ?' @<D' 01+' J@1%%E' '< %>D!' <%+@1#=@' +@>' J<.E'H 0=' ?>>B?' .<+@>.' +1' @<,>' C1B>' 0+1' +' <?' <' ? %>0+' A<.+0>.!' '' J>' B<E'?1' ?<E!' +@<0' J +@' +@>' 0+>0+ 10' 1'' <''1.D 0=' <0E' 1A>0' 1.' ,>.E' <C+ ,>' C11A>.<+ 10 T' @>' .>%<+ 10?' 1'' <B +E' $>+J>>0' +@>' +J1' C1#.+?' J>.>' ?+ %%' '#.+@>.' ?+.>0=+@P >0>D' $E' +@>' +.><+E' 1'' B<.. <=>' <$1,>' <%%#D>D' +1!' ' 0<%%E' <D"#?+>D' C+1$>.' ?+!' 6: !' <0D' .<+ ' >D' +@>' '1%%1J 0=' E><.!' $>+J>>0' .+@#.' 5. 0C>' 1'' <%>?' <0D' +@>' 0'<0+<' 10<' <+<% 0<!' C10?A C#1#?' 0' 0=% ?@' @ ?+1.E!' >F#<%%E' '1.' @>.' B ?'1.+#0>?' <0D' @>.' , .+#>?!' <?' <+@<. 0>' 1'' .<=10 '' @>' .>0C@' , >J>D' J +@

0' A')', A', ' 0' ,)(' 0' 9% <' %)5' A' $,%' B' (5'%' A%' 3 ,)' 0' A' %)(,)' : A,(' 1)% (AC' BA,(A' A%5') . ' 4 B 5' 4) % A' A' % %( )' C @ !' G' 1%' *% !' 1!',,!' 33!' / I J / 6! J')5 G%' ,')5%5 ' 5 %*% , ; %' ,4!',,,!' (%3!' FF,,,! Q' N$, %' 8, ' 5' 8 1!' ' *% !' ,4!',,!' (!' FF.! J C1 ' 5 %'. !' F,,!' 33!' I J D 4 5!')5!' / /! 5,)%)5' $ 5' A,' ' 5' 0; 0,(' ' 1 5,% '%'3 %('4 B)' 8) C' E !' %)5' A' ",)'' 0' (<' %)5', ', '% 3 0' 0' A' 3 (') %,) 5' 0 ' A,1' 4C' 4 A' A ' 1)% (A' A%' A C' %' 5' ' 0 ' A , '5, 3$ ' ' A, ' % 4, % ,)!' P C1 ' . ! F,,!' 3!' / !X' 8')5' [' %C' A' 5' (A),(' 8% ' 0' A')', A' 3 ,)('Y' 4 C,)'' ( )0 ; 5 % '%)5'%, 5' 4C' % , '%)5' %'$' B, A'%' A, ') ,'A4 ' A' ' % 0, 5' B, A' A, ' 1 ' A % , ' A%)@' @C)'' 5,)%)5'%)5' A' 2$)' A, ' B,0 ' 'BA,(A' B 1%)'))' A ' B%' (13% %4 ' ,)' A ' C1 ' 0 ' A%' A C' B ' A' 1 5,% ' '%) '%)5',)>' $1) ' 4C' A' BA,(A> A' 1(' B%' ( )($5 5' 4 B)' A' (, A' @C)'' %)5' A,1' %)5' B% 5 5' A, '%14% %5 $ ' 1 ' ,4 % C'%)5'4 $) 0$ C!Z' *A),(' 3!' D I <' 5!' I H! ' ' A' 1% ,%' ' % C',)' C1 !' P 5 %'. ! F,,!' 33!' 6I J !X' A' 1% ,%' ' A%5' 4)'% %)' 5'4 B)' A' 3%); , A' %)5')', A' ($ ' %' 0%' 4%(@' %' % (A' DIH' BA)' A' 5 ' 0' A' 3% , ' A%5') ' C ' %(A 5' A' 0,0 A' C %' 0' A ' %' ' A, ' B%' ( )0, 1 5' 4C' %); A ' 1 ' 0$ ' %)5' 5 0,), ' ,)

01 % ++%> "><%1#?E +@> A.1=.>?? 1 '+@>?> ,<. 1#? 0>=1P + <+ 10?! J@ C@ +@>E G><%1#?%E >0D><,1#.>D +1 +@J<.+ $E <%% +@> <.+ ' C>? 1 ' D A%1B<CE # + S 0= >.D P 0<0D @<D ?#'' C >0+ <DD.>?? +1 ?>C#.> 0 @ ? 0+>.>?+? A>.?10? 1 '+@> @ =@>?+ C.>D + <+ +@> C1#.+? 1 ' >0.E <0D <K B % <0! J@1 A.1BA+%E <CF#< 0+>D @ B J +@ +@> 0+. =#>? 1 ' +@> .>0C@ =1,>.0B>0+! <0D >''>CP +#<%%E < D>D 0 C1#0+>.<C+ 0= +@>B T

@> 0=% ?@ C100>K 10 J<? 0>C>??<. %E D>'>..>D '1.' ?1B> E><.?! 10 <CC1#0+ 1 '+@> E1#+H 1 '+@> A<.P + >?! 0> +@>.' 1 ' J@1B >KC>>D>D >%>,>0 E><.? 1 '<=> 1 ?#C@ BA>D B>0+ 1CC#..>D 0 .>=<.D +1 +@> >.P B<0 <%% <0C>?! <0D B><?#.>? J>.> +<H>0 <+ 10C> '1.' A.1, D 0= < ?# +<$%> C10,>E<0C> '1.' +@> 0'<0+< /1P <00< 0+1 %<0D.?! J@ C@ ?@1#%D $. 0= $<CH +@> 5. 0C>?? <.=<.>+ 10 +? .>+#.0 E +@> >0D 1 ' ?#B B>.! - 6: !* < '%>>+! C10? ?+ 0= 1 ' 10> @#0D.>D <0D +@ .+E ,>??>%?! %<.=> <0D ?B<%%! ?+.10=%E B<00>D! <0D +@1.1#=@%E >F# AA>D J +@ <%% +@> B><0? 1 ' D>P '>0C> <=< 0?+ +@> .>0C@ C.# ?>.?! J<? =1+ .><DE '1.' ?>< 0 +@> A1.+? 1 ' # A#?C1< <0D ?C<E ' @>

A 0 B,) ' C % DH ! C A, % C , B% ,3$ % 5 A% * % A% ,) K 3 ,) A $ 5 4 ' 5 (B)) > A% 0 '4 '3%,5 5 B) % ' A '5% ' 0 A '1% ,%' '%)5 A 1%,); 5 ' ,) B 2$% 3%C1) ' ,) A ' ($ ' 0 A ' B ' C % '); $,) '! A ' ,)(' 0 9 % ' B% ' ' ') A ') > A, 5 0 A ' .)$ ' 0 A '3 ,)(,3%; , C 0 9 % ' A ' 5$@ 5 1 ' 0 *)B% ' %)5 % 5 1 ' 0 *A >

! C1 ' 5 % ' . ! F,,! AA 6 O6 9 Q Y ($ [%C ' N$, % ' Z 2$ ' ' 00 ($%) ' 1% ,; 1), ' 5 ' $ ' A,+ ') ' ( ) ' 3 1 % ' 3 ' ( ) ' 5%5,.% ' 2$ ' A,G,) ' % ' 3 ,.%5 ' 5 ' %2$ 3 ,)(,3 2$) '))5,%)!K 8, ' 5 ' 8 ;)%)5 ,4! ,,! (%3! ,,,! ' A ' A, ,%) ' 5,00 ' % ' $ $% ' % ' ' A ') ' A' 0 A, ' % 1%1) ! % C ' 1%@ ' ,

' (

J@1%>ʻ J<?ʻ A%<C>Dʻ #0D>.ʻ +@>ʻ D .>C+ 10ʻ 1'ʻ 10ʻ <Mʻ D. F#>ʻ 0. F#>G!ʻ DB .<%ʻ 1'ʻ <?+ %>!ʻ J@1ʻ C<.. >Dʻ <%10=ʻ J +@ʻ @ Bʻ <ʻ ?A%>0D Dʻ ?@1Jʻ 1'ʻ C@ ,<%.E!ʻ C@ >'%Eʻ D.<J0ʻ '.1Bʻ +@>ʻ 01.+@>.0ʻ A.1, 0C>?ʻ 1'ʻ +@>ʻ H 0=D1Bʻ ʻ B1.>ʻ =<%%<0+ʻ <0Dʻ $><#+ '#%ʻ <.B<D<ʻ 0>,>.ʻ $>'1.>ʻ F# ++>Dʻ +@>ʻ ?@1.>?ʻ 1'ʻ A< 0 ʻ @>ʻ 0'<0+<ʻ /1<00<!ʻ <++>0D>Dʻ $Eʻ <ʻ 0#B>.1#?ʻ ?# +>!ʻ <.. ,>Dʻ 10ʻ $1<.Dʻ +@>ʻ '%>>+ʻ +1J<.D?ʻ +@>ʻ >0Dʻ 1'ʻ #=#?+!ʻ <+ʻ +@>ʻ A1.+ʻ 1'ʻ <P .>D1ʻ 10ʻ +@>ʻ ><?+>.0ʻ $1.D>.?ʻ 1'ʻ +@>ʻ ?+#. <?!ʻ J@>.>ʻ ?@>ʻ +11Hʻ <ʻ %<?+ʻ '<.>J>%%ʻ 1'ʻ +@>ʻ F#>>0ʻ @>.ʻ B1+@>.!ʻ J@1ʻ A1?+A10>Dʻ +@>ʻ @1#.ʻ 1'ʻ ?>A<.<+ 10ʻ <?ʻ %10=ʻ <?ʻ A1?? $%>ʻ $Eʻ <CC1..A<0E 0=ʻ @>.ʻ D<#=@+>.ʻ +1ʻ +@>ʻ A%<C>ʻ 1'ʻ>B$<.H<+ 10

@>ʻ J><+@>.!ʻ ?110ʻ <'+>.ʻ @>.ʻ D>A<.+#.>!ʻ $>C<B>ʻ >K+.>B>%Eʻ .1#=@ʻ <0Dʻ +>BA>?+#1#?Lʻ <0Dʻ +ʻ J<?ʻ ?1ʻ %10=ʻ >.>ʻ <0Eʻ + D 0=?ʻ 1'ʻ +@>ʻ ?F#<D.10ʻ .><C@>Dʻ +@>ʻ F#>>0!ʻ +@<+ʻ @>.ʻ <''>C+ 10<+>ʻ @><.+ʻ J<?ʻ ' %%>Dʻ J +@ʻ +@>ʻ B1?+ʻ D ?+.>?? 0=ʻ <AA.>@>0? 10?ʻ @>ʻ ?>0+ʻ '1.ʻ +@>ʻ 1%D>?+ʻ <0Dʻ B1?+ʻ >KA>. >0C>Dʻ 0<, =<+1.?ʻ 0ʻ +@>?>ʻ $1 ?+>.1#?ʻ 01.+@>.0ʻ ?><?!ʻ C10?#%+ 0=ʻ +@>B!ʻ ?<E?ʻ <.P +E.!ʻ D<Eʻ <0Dʻ 0 =@+!ʻ 10ʻ +@>ʻ A.1$<$%>ʻ C<#?>?ʻ 1'ʻD>%<E!ʻ +@>ʻ A.>,<%>0+ʻ C1#.?>?ʻ 1'ʻ +@>ʻ J 0D?ʻ <+ʻ +@<+ʻ ?><?10!ʻ <0Dʻ +@>ʻ ,<. 1#?ʻ D '' C#%+ >?ʻ <0Dʻ D<0=>.?ʻ 1'ʻ +@>ʻ ,1EP <=>!ʻ $ ++>.%Eʻ .>=.>++ 0=ʻ +@<+ʻ +@>ʻ +.1#$%>?ʻ J +@ʻ .<0C>

ʻ. ʻ%)5ʻ ʻ 5, ʻ 4:!ʻ)4/).ʻ/.ʻ ()ʻ:ʻ45/ &' /:0
P 3$ʻ 3, !ʻ 3!(F.,,,!X< BA, ʻ ')ʻ.ʻ45/ !/&%'!ʻ4!((80ʻ 95 /
1%5 Gʻ(% , ʻ A ʻ)$14 ʻ ʻ /6' ./Cʻ9!4)&6(!/ ((0/:ʻ
ʻ %,ʻ %)5ʻ 6 ʻ 5, !ʻ)*%./ʻ,/00/0')ʻ.ʻ0/'6/)ʻ(ʻ
P C ʻ *% !ʻ !ʻ (%3!ʻ (,,,!X /,/!ʻ./0*!84()ʻ 5/04!/)&45
%ʻ%5 3 ʻ Aʻ % ʻ ,; (ʻ450 (!*/ '4 ')ʻ:ʻ!'4/ 0% <
1% !ʻ P 1!ʻ.,,,!ʻ3!ʻ / !X< Aʻ */)4:ʻ 44/040 45/)*!/'0/.
5, (3%)(Cʻ1%Cʻ4ʻ,)ʻ3% ʻ F; 1%,,1ʻ $(ʻ 0ʻ Aʻ
3%,)ʻ5ʻ4Cʻ $33 ,)'ʻ A%ʻ % ; ($) C!

A.>,>0+>D <0E 1+@>. B><0? 1'' C1B B#0 C<+ 10 +@<0 +@> +.><C@>.1#? >%>B>0+ +1 J@ C@ ?@> @<D +.#?+>D @>. D<#=@+>. T >. ?A . +? J>.> ?+ %% '#.+@>. D>P A.>??>D <+ +@ ?"#0C+#.> $E +@> D><+@ 1'' @>. 1J0 B1+@>.! +@> D1J<=>. ?<$>%%<! J@1! #0D>. +@> B>0P +<% 0' .B +E J +@ J@ C@ ?@> @<D $>>0 , ?+>D '1. B<0E E><.?! @<D <%J<E? >KA>. >0C>D +@> B1?+ D>,1+P >D <++>0+ 10 ' 1B @>. D<#=@+>.! J@1 B 0 ?+>.>D +1 @>. 0>C>?? + >? J +@ @>. 1J0 @<0D?! <0D J<+C@>D 1,>. @>. D>C% 0 0=E><.? J +@ +@> B1?+ +>0D>. ?1% C M +#D> '

+ %>0=+@ +@> %10=MD>? .>D 0+>%% =>0C> C<B> 1'' +@> <.. ,<% 1'' +@> <?+ % <0 '%>>+ <+ +? A%<C> 1'' D>?+ P 0<+ 10 + / <D $>>0 ?1 =. >,1#?%E ?@<++>.>D! @1JP >,>.! $E +>BA>?+?! <? +1 .>F# .> $> 0= .>' ++>D 0 +@> A1.+? 1'' 0=%<0D >,>.<% 1'' +@> ,>??>%? J>.> %1?+! <0D B<0E 1'' /1<00< ? <++>0D<0+? A>. ?@>D '.1B +@> 0C%>B>0CE 1'' +@> J><+@>. <0D +@> 0#B>.1#? @<.DP ?@ A? +1 J@ C@ +@>E J>.> >KA1?>D @> 0'<0+<! @1J>,>.! @<AA %E .><C@>D %<0D>.? 0 ?<'>+EL <0D! 01+ %10=<'+>.! >. 0#A+ <%? J +@ +@> .C@D#H>5@ % A J>.> C>%>$.<+>D 0 +@> C +E 1'' ?%> J +@ <%% ?# +<$%> A1BA <0D ?1%>B0 +E

@> '%>>+ J<? D>+< 0>D #0+ % +@> >0?# 0= J 0+>. +1 +.<0?A1.+ +@> D>?+ 0>D $. D> 1'' +@> E1#0= 5. 0C> 1'' ?+#. <? +1 A< 0 @ ? %<DE! J@1 @<D $>>0 <'' P <0C>D 0 @>. C.<D%> +1 @<.%>? 1'' .<0C>! @<D

L ! % C 3$ 3, ! 3! 0 *% 4%+%)% 5 ; (FF,,! J *% 4%+%)% !)%)5 ! %) H ! J T ! % ; %) H:! J % ,%)% 8, 5 > C 3$ 3, ! 3! (FF,,! 3%)% 1! ,,! ,4! FF.,! (%3! F,,!

:

.>C> ,>D@>.>D#C<+ 10 <+ +@> C1#.+ 1 '5<. ? 0@>2 0+>0D>D@#?$<0D ? B<.. <=> J +@ +@> @> .>?? 1 . +P +<0E! ?@> @<D $>>0 .>+#.0>D +1 @>.> 0<+ ,> %<0D #0D>.> C .C#B?+<0C>? 1 0D =0 +E 0>,>.+1 $> '1.= ,>0 $E +@> @1#?> 1 #?+. < @> J<? 01J 0 +@> ?>,>0+>>0+@ E><. 1 @>.> <=>! <0D @<D <%.><DE = ,>0 <BA%> A.1M B ?> 1 '+@1?> #0C1B B10 A1J>.? 1 B 0D J@ C@ D ?+ 0P =# ?@>D @>.> 0 . A>.> E><.?! <0D 1 J@ C@ ?@> @<? %>'+ <$#0D<0+ >, D>0C> 0 ,<. 1#? J . ++>0 C1BA1? + 10? U 0 @>.> A<??<=> +1 A< 0! 0 B DJ 0+>.! +@> '%>>+ >0C1#0+>.>D ?#C@ +.>B>0D1#? =<%>? +@<+ A<.+ 1 + J<? ?@ AJ.>CH>D&! <0D <.=<.>+ ? ,>??>% @<D J>%% 0 =@ '1#0D>.>D @> .>+< 0>D! @1J>,>.! ?#'' C >0+ C1BA1?#.> <B D?+ +@> A>. %? 1 @>.> ? +#<+ 10! +1 0P D +> @>.> 1J0 >A +<A@! 0 +@> ''1.B 1 < A%><?<0+ D P ?+ C@! J@ C@ 10+>0>%%> @<? B<D> +@> ?#$">C+ 1 10> 1 @ ? <B#? 0= D <%1=#>?! J@>.> @> <''>C+? +1 C10? P D>.> +@> '1.+ +#D> D ?A%<E>D $E @>.> <+ +@ ? <J '#% B 1M B>. + <? ?#.A<?? 0= +@<+ 1 +@> A@ %1?1A@ C D. <0 0 @ ? DE 0= @1#.! 1.> +@> ,<#0+>D @>.1 ?B 1 <+1 1 + C< 1 .+#0<+>%E! @1J>,>.! <.=<.>+ ? >A +<A@

L ! % C 3$ 3, 3! (FF,.! J :%,4%C * 130)5! 8, 5 3%,,% 1! ,,! ,4! F,F! *. J :%, % 5 ,.%, T 5 %)(5 3%') 1!,,,! 33! D !D I J %)5 .% 8, ,% 5 13 %5 *% E! 14 I 0 ! 1!,!3! ! 5/0/ *(68!/5/).)& 5/! ,/!0/0 8%= * '..!/00/0 '). 0*(%!0/ ()5/! (9) /'5',/ =//) *(/*4/.)4(0)& / ,(< %6/ %).!! 45/ 44 / (M '

* $)) % '%, ,2$ [C) 6DH 4C A)(A B, ? %) %% %, 5 ,' A 0%, A0$ 0 B 4$ BA ' % '' C, , ' A%. 4) A ,) $(0* 1) % 4 , ()4/)/ / %,!/0 4(6 , @ &04 '!&(4 &/ 4 .'7 6(0/ / E%% . /%+ 6'!0 /4 /)*(!/ /0418%*/ /A

J<?' 01+' 0>>D>DL' ?@>' <. . ,>D' 0' ?<'>+E' <+' +@>' A1.+' 1''
<0+<0D>.' 0' +@>' ?+#. <?'><.%E' 0' <.C@' 6:9

@>'E1#0='5. 0C>'1'' ?+#. <?!'<CC1BA<0 >D'$E'+@>'
H 0=' @ ?' '<+@>.!' @<?+>0>D' +1J<.D?' +@>' 01.+@' +1' .>P
C> ,>' @ ?' .1E<%' B ?+.>??!' J@1B' +@>E' B>+' <0D' >?C1.+>D'
+1' #.=1?!' J@>.>' ?@>' J<?' .>C> ,>D' J +@' +@>' @ =@>?+'
B<.H?' 1'' ?<+ ?'<C+ 10' $E' +@>' F#>>0' <0D' +@>' J@1%>'
C1#.+' 5.>A<.<+ 10?' J>.>' 0?+<0+%E' B<D>' '1.' ?1%>BP
0 G 0=' +@>' 0#A+ <%?' 1'' +@>' .1E<%' A< .!' <'+>.' +@>W'>KA P
.<+ 10' 1'' >0+!' 0' <' ?+E%>' 1'' B<=0 ' C>0C>' ?#C@' <?'
@<D' 0>,>.' $>'1.>' $>>0' J +0>??>D' #0D>.' +@>' A.>?>0+'
.> =0' @>' B<.. <=>' C>.>B10E' +11H' A%<C>' 10' +@>'
.D' 1'' A. %!' <0D' J<?' A>.'1.B>D' $E' +@>' .C@$?@1A'
1'' 1%>D1' 0' +@>' A.>?>0C>' 1''+@>' =.<0D>>?' <0D' A. 0P
C A<%' 01$ % +E' 1'' <?+ %>!' +@>' '1.> =0' <B$<??<D1.?!'
<0D' +@>' D>%>=<+>?' '.1B' .<=10' B10=' +@>?>' %<++>.'
J>.>' +@>' B<= ?+.<+>?' 1''+@>' A. 0C A<%' C + >?!' C%1+@>D'
0' +@> .' B#0 C A<%' 0? =0 <' <0D' C. B?10' .1$>?' 1''
1'' C>!' J@1' ?>>B' +1' @<,>' @<D' F# +>' <?' BA1.+<0+'
A<.+?' <?? =0>D' +@>B' $E' +@> .' D>B1C.<+ C' C1B B#P
0 + >?!' 0' +@ ?' <0D' <%%' ? B %<.' A<=><0+?!' <?' <0E' 1''+@>'
01$ % +E' 1.' =>0+.E' @>' 0#A+ <%?' J>.>' '1%%1J>D' $E'
<' $. %% <0+' ?#CC>?? 10' 1''>+>?!' +1#.0>E?!' + %+?' 1'' .>>D?!'
<0D' 1+@>.' J<.%H>' ?A>C+<C%>?!' 0' J@ C@' +@>' B<+C@%>??'
C@ ,<%.E' 1'' A< 0' A1#.>D' 0+1' +@>' % ?+?' +1' D ?A%<E'
+@> .' B<=0 ' C>0C>' <0D' A.1J>??' 0' +@>' A.>?>0C>' 1'

'1$ '4'% B 5' A%' %>' 5 5' A')(A' %, , 'B%' '
'% K' 2$, ' + # B%' %. ' ' & # #& 0' % '@,)5 '
1$(A'1 ' $, 5' ')) K' A% 'A 'A% '( ) ,. 5' '0,)5'<
A%4, $%' % ' A%)' A ',13 >' ,5,($ $' ,5',)' A, ' % '<C+1''
,)'' ( ) ' 0' *% K' 5 % A!')>' A '3% , ' 1%)!

+@> .' '#+#.>' F#>>0 T' @>' C@.10 C%>?' 1'' +@>' D<E' .>P B<.H' 10' +@>' ?+. H 0=' C10+.<?+' >K@ $ +>D' <+' +@>?>' >0+>.+< 0B>0+?!' $>+J>>0' +@>' =<E' <0D' '<B % <.' B<0P 0>.?' 1'' <.=<.>+' <0D' @>.' %>B ?@' 01$%>?!' <0D' +@>' A1BA' <0D' ?+<+>%E' C>.>B10 <%' 1'' +@>' <?+ % <0' C1#.+!' +1' J@ C@!' 0D>>D!' +@>' #?+. <0' A. 0C>??!' 0#.+#.>D' <?' ?@>' @<D' $>>0' 0' <' 5<. ? <0' <+B1?A@>.>!' C1#%D' A>,>.' $>' J@1%%E' .>C10C %>D '

@>' B<.. <=>' 1'' +@>' @> .M<AA<.>0+' C1#%D' 01+' @<,>' $>>0' C>%>$.<+>D' <+' <' B1.>' <#?A C 1#?' A>. 1D' +' J<?' 0' +@>' B D?+' 1'' 0>=1+ <+ 10?' '1.' <' =>0>.<%' A><C>!' J@>0' +@>' 0<+ 10' B =@+' .><?10<$%E' @1A>' +1' +<?+>' +@>' ?J>>+?' 1'' .>A1?>!' <'+>.' ?1' B<0E' %10=' <0D' #0 0+>.P .#A+>D' E><.?' 1'' J<.' ,>.E' $1?1B' ?J>%%>D' J +@' >K#%+<+ 10' 0' C10+>BA%<+ 0=' +@>' =%1. 1#?' D>?+ 0 >?' 1'' +@> .' C1#0+.E' #0D>.' +@>' $>0>' C>0+' ?J<Ea1''<' A. 0C>

Q' A%' A 'B ') ' 1 ' A ,5%C' 3 ' B%' 3 . 5' 4C' A' 1 %)(A C' 5 % A' 0') ' 5' *% 5)% ')' 0' A ' * 1)>' 5%5 '5 ')' BA ' 'A,' ,0' ,)' %' $) C!' #$,)($%')% ' 5' .,5 ' ! % ! ' 2$,)(! ' 5,% ! !

]' *% 4%+% ')% ' ! %) ' TH/! J % ,%)%' 8, '5 ' 3%)%' 1!' ,,!' ,4!' FF.,!' (! F.,! J %>')$G%!' 8, '5 ' %') ' ,4!' ,!' (! .,,,! J 4% (%' C '5 ' %') ' 1!' ,,!' 0 ! !

Y' ' %$)2$ [' %C' A' % ' %$ A ' 8'%' %' 3 ,)(% ' ' 5 F%)' 5 ' $' (,%5 ' ,>' 'C')),1,) ' ' %'%5>' ., , '2$')' %' (1),%') ' A%.,% 5' % % ' %' % ' 3)%' % 'C' : %)5 ' ( )' %'0%1, ,> % ,5%5'C' %) G%'5 ' %' (% %' 5 ' $,%' '),%' C' %)(,%' ,) ' ( )>' %' ' %. 5%5'C' 1 $>' %5%'%$,5%5'5 ' ' C 'C')%(,) '5 ' 3%0,%' [

A' ,F A'. $1' 0' A ' 3%>M'), A' (%5 1C' 0' 8, C' ( ); %,) ' %)' ,).) C' %@)' 0 1' A ' % (A,. ' 0 ,1%)(% ' 0' A ' ,(A' 3 % ' %)5'+ B '3) 5' ' A ' ,)(' % '% ')' A ' 5%C' 0'A ' 1% ,%' ! A C'% ' %,5' ' 4 ' Y' 0' $(A'.% $ ' %)5' 3 0 (' B @1%) A,3' A%' A ' ,@' B%') . '4 0 ')![' -0M $!'F,!' 33!' I J D !X' %4 % A%5' $) 5' A '4%$4 ' ' ' 5' %(($)' ,)' A' B%' 0' : %)%5%!' A' B%' ' ,13 ',)' A ' % ' ' % %(A' 1$(A'.% $ ' ' F C' 0'%33% !

+@>' ' .?+' @> .' 1'' +@>' @ +@>.+1' D ??>,>.>D' B10<.C@ >?' 1'' A< 0' %<?Z' <+' +@>' B1B>0+' J@>0' >.D 0<0D' <0D' ?<$>%%<!' $%>??>D' 0' +@>' <''>C+ 10?' 1'' +@> .' A>1A%>!' <0D' ?#..1#0D>D' $E' <%%' +@>' +.1A@ >?' 1'' <' =%1. 1#?' .> =0!' ?>>B>D' +1' @<,>' .><C@>D' +@>' ,>.E' G>0 +@' 1'' @#B<0' '>% C +E!' +@>E' J>.>' D11B>D' +1' .>C> ,>' 10>' 1'' +@1?>' B1#.0'#% %>??10?' J@ C@' <DB10 ?@' #?' +@<+' <%% ><.+@%E' A.1?A>. +E' ?' $#+' <' D.><B T

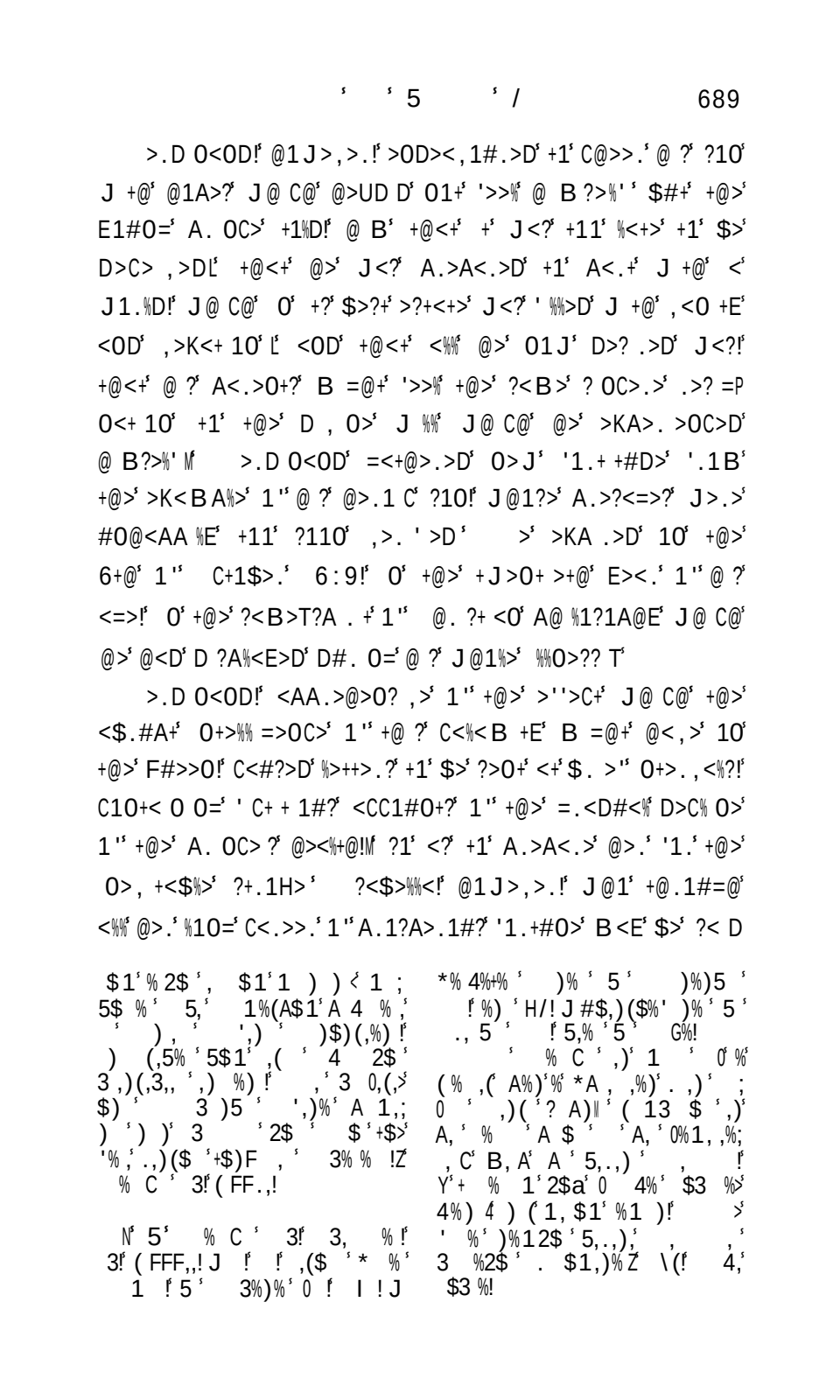
1+' %10=' <'+>.' 5. 0C>' /1@0 ?' B<.. <=>!' +@>' ?1,>P .> =0?' @<D' +@>' ?<+ ?'<C+ 10' +1' J +0>??' +@<+' 1'' +@> .' D<#=@+>.' ?<$>%%<!' J@1!' 01+J +@?+<0D 0=' @>.' .>A#=0' 0<0C>' +1' <' ?>C10D' #0 10!' @<D' E >%D>D' <+' %>0=+@' +1' +@>' #.=>0+' >0+.><+ >?' 1'' @>.' A<.>0+?' +1' .>C> ,>' +@>' <DD.>??>?' 1'' @>.' 51.+#=#>?>' %1,>.' @>' .>F# .>D' <?' +@>' A. C>' 1'' +@ ?!' @1J>,>.!' +@<+' B<0#>%' ?@1#%D' ' .?+' $<0 ?@' +@>' />J?' '.1B' @ ?' D1B 0 10?!' J@>.>' +@>E' @<D' $. $>D' <' .>?+ 0=MA%<C>' ? 0C>' +@> .' >KA#%? 10' '.1B' A< 0L' <' C .C#B?+<0C>' +1' J@ C@' +@>' ?#A>.?+ + 1#?' A. 0C>??' BA#+>D' +@>' B ?'1.+#0>?' J@ C@' @<D' '<%%>0' 1'' %<+>' 10' +@>' .1E<%' @1#?>' 1'' 51.+#=<%' B<0#>%!' J@1?>' 1J0' % $>.<%' B 0D' .>,1%+>D' <+' +@ ?' #0"#?+' <0D' BA1% + C' B><?#.>!' J<?' J><H' >01#=@' +1' <%%1J' @ ?' A<?? 10' +1' =>+' +@>' $>++>.' 1'' @ ?' A. 0C A%>?!' <0D' A<??>D

' ,' 3 (, C' A,' 3 , 5' C ' *% ,(')')+%)5 ' ' % A ' A ' BA ' 3 , 5' 0 1')' A%' %4 ' 5 ' ' , %' 1 >' DH ' ' DH/' BA,(A' ., 5 ' ; 1 ,%' 1 %' % ' ' , 13 ' ' 1 %' ('% ' A%' 0' A ' ' % ' 3); ' G,+%5 ' .,) ')' $' (' ' 5 $' %)5' 0 ,., C' % ' A ' ($' 1%')($14 %5%' %)5$4 ' %' '% %' 0' A ' *% A ,(. ,') !' Z' ' % ' 0, % ' ' .,(, ' 5 ' '%>' %A ' 5 ' DH ' C' $) ' 5 ' 5 ; !' %) ' ' 5%1) !Z' #$,)($%' >' 3$ ' C' %,1' A% %' ' 5 ' DH/')% ' !' % !' ' 2$,)(!' D ' 5,% !' %A ' 0$ ' ($%)5 ' %' (' 5 ' DD!

?>0+>0C>' 1"'>K %>' 10' >,>.E' ?.<>% +>' 0' @ ?' H 0=D1BL'
'#.0 ?@ 0=' A>.@<A?' +@>' 10%E' >K<BA%>' 0' J@ C@' %1,>'
@<?' $>>0' B<D>' 10>' 1"' +@>' +@1#?<0D' B1+ ,>?' '1.'
A>.?>C#+ 0=' +@ ?' #0@<AAE' .<C> T

@>' B<.. <=>' #?@>.>D' 0' #0D>.' ?#C@' %%M1B>0>D'
<#?AC>?' J<?' C>%>$.<+>D' <+' +@>' '.10+ >.' +1J0' 1"' <P
%>0C <' D>! %C<0+<.<!' 0' +@>' A.>?>0C>' 1"'+@>' <+@1%C'
?1,>.> =0?!' J +@1#+!'A1BA' 1.' A<.<D>' 1"' <0E' H"0D'
@ %>' +@>E' J>.>' D>+< 0>D' +@>.>!' <0' >KA.>??' <.. ,>D'
'.1B' <%<B<0C<!' $. 0= 0=' + D 0=?' 1"' +@>' D<0=>.1#?'
%%0>??' 1"'+@> .' ?10!' +@>' 5. 0C>' 1"' ?+#. <?' >' @<D'
$>>0' ?> G>D' J +@' <' '>,>.' 0' +@>' B D?+' 1"'+@>' A#$%C'
.>"1 C 0=?'+1' J@ C@' @ ?' <.. ,<%' J +@' @ ?'U.1#+@'#%' $. D>'
0' +@<+' C +E' @<D'= ,>0' . ?>' @>' ?EBA+1B?' ?A>>D %E'
<??#B>D' <0' <%<.B 0=' C@<.<C+>.' @>' A. 0C>?' C10P
?+ +#+ 10!' 0<+#.<%%E' D>% C<+>!' +@1#=@' ?+.>0=+@>0>D' $E'
<' %'>' 1"' @<$ +#<%' +>BA>.<0C>!' ?#0H' #0D>.' +@>' , 1P
%>0C>' 1"' +@>' <++<CHL' <0D' J@>0' @ ?' '<+@>.!' J@1'
A1?+>D' J +@' <%%' A1?? $%>' >KA>D + 10' +1' <%<B<0C<!!'
<.. ,>D' +@>.>!' 01' @1A>?' J>.>' >0+>.+< 0>D' 1"' @ ?' .>P
C1,>.E &Z&

Q' % ,%'C' $%' $ 3!' >' %' 13 %C' 3%%,)' 0'? A)'
$'!' 1!' ,,!' 33!' DHI' DHH!J' 0 1'A,'C $)"'4,5<' %' 1 5C>'
* 5' 8,' 5' $'%' 1!' A B . ' BA,(A' A' 2$)' 3;
,.!' A' H6!J N$,%' 1!' ' ,4!' 3 5' 0 1' ( ) (,), $' ($;
,,,!'(!.,!J %)$G%'8,' 5' %; 3 ' 1 BA%' ,)'$%!' Y'8 >'
')' $4,' $3 %! %) $' 1 5,(,' ',)%1'A %$'
]' :%,)5 G'5' *% 4%+%' ! ' F' $')' 3,)(,3,' % '
%)' H/!J G' C)%' *% >' % '%,%1'%,2$%)5 1 . %'
,(%' 1!' ,,>' >' ID!' IDI!J' ,) 3 !)5$(,%'3 (%) $!'
N$,%' 8,' 1!' .!0 ! /' %) $' 3 ,($$1' F 0 ;
I!J * 5' 8,' 5' $'!'Q 2$)-'(3$% 3A 4',1 1,) <'
1!,.!3! ! 2$%, ' $1' $F ,' 2$%1. '
A'3AC,(,%)' (1 1)5 5 $4 , ,',)(5%'( ) ,5 ', >



+1 @<,> H>A+ @>.' @><.+ O C10?+<0+ +.< 0 0= '1.' +@> D<.H @1#.' 1'' <D,>.? +E! .>C> ,>D +@> '<+<% + D 0=? O < ?A . + 1'' B>>H <0D @#B $%> <CF# >?C>0C>! +>?+ 'E 0= @>.' .>? =0<+ 10 O +@> $><#+ '#% %<0=#<=> 1'' C. AP +#.>! @> 1.D @<+@ = ,>0! <0D +@> 1.D @<+@ +<H>0 <J<E! $%>??>D $> @ ? 0<B > ZR T

Q @#?!R ?<E? <.+E.! J@1 @<D +@> B>%<0C@1%E ?<+ ?'<C+ 10 1'' .>0D>. 0= +@> %<?+ ?<D 1'' C>? +1 @ ? .1E<% A#A %! Q J<? %< D %1J +@> @1A> 1'' <%% A< 0 R Q >,>.' J<? +@>.> < D><+@!R ?<E? <01+@>.' C@.10 C%>.! Q J@ C@ 1CC<? 10>D ?#C@ D>>A <0D =>0>.<% %<B>0P +<+ 10 +@.1#=@1#+ +@> %<0D R %% +@> #0<,< % 0= @1P 01#.? J@ C@ <''>C+ 10 C1#%D D>, ?> J>.> A< D +1 @ ? B>B1.E ? '#0>.<% 1$?>F# >? J>.>U C>%>$.<+>D J +@ B>%<0C@1%E ?A%>0D1#.! <0D @ ? .>B< 0? D>A1P ? +>D 0 +@> 01$%> 1B 0 C<0 B10<?+>.E 1'' + @1B<? <+ , %<! J@ C@ @<D $>>0 >.>C+>D $E @ ? A<.>0+? @> C1#.+ A#+ 10 < 0>J'<0D D>>A>.' B1#.0P 0= +@<0 +@<+ @ +@>.+1 #?>D! <? '' +1 +>?+ 'E +@> .' #0 J10+>D =. >' '' %% 1'' C>?! A#$% C <0D A. ,<+> '>.> C%1?>D '1.' '1.+E D<E? L <0D ?<$%>MC1%1#.>D $<0M

L ! % C,' 3$' 3,% > 5,$! ,1,$1' %1)' 5 ,> % ! 3! (FFF,,,!))'A$1%)5 (%1 ' . , ' ' % C'5 %B'%)'%00 (,)''3,(; A 1,)) 2$'%5%1%) 5$> $ ' 0 A'%)'$,A 0 A'4 ; , '), ,'2$,5'%1, ,)) ,> %. 5 3%) BA,(A 4 %C 5) ![, 0 ,) @' 1 2$) 0 %)(% *)%(,) 5 A%)B 5 ! Z ' %) %1'5, > %') ,4 A,! (%3! F.,,,! J :%> ,1$ % ($1)%1), $) $ < ,4%C! 8, ! * 13' 5 3%)%' % ') 3 %$1' ,) ,) 1, ,4 A,! F,F! (%3! .,! J %(@; 1! ,,! ,4! F,F! (%3! .,! J %(@; ,3 $1'%),1$1'(1,1$ < ($> (A B%' $4 ,$ 5 0 ' A ' % ' ,) 0%(, 1'% ,$ ' (> BA, ' ' BA,(A , A, ,1 4 5 ( )+,($) ,) 3 3%$ > A%5 4)K$ 5'% A 1 $),) 5) !)5 2$,5 % % 3 > 5 !

0>.?' J>.>' ?#?A>0D>D' '.1B' +@>' J<%%?' <0D' A1.+<%?' 1'' +@>' C + >?' #C@' >K+.<1.D 0<.E'+1H>0?' 1''A#$% C' ?1.P .1J' $><.'?+.10=' +>?+ B10E'+1' +@>' 0+>.>?+' '>%+' 0' +@>' E1#0=' A. 0C>!' 0D>A>0D>0+%E'1'' @ ?' >K<%+>D' ?+<+ 10L' ? B %<.!' <0D' A>.@<A?' B1.>' #0>F# ,1C<%' >, D>0C>' 1'' @ ?' J1.+@!' ?' <''1.D>D' $E'<$#0D<BC>'1''C10+>BA1.<.E' 01+ C>?!' 01+' B>.>%E' 0' J1.H?' D>? =0>D' '1.' +@>' A#$% C!' $#+' 0' A. ,<+>' C1..>?A10D>0C>' @>' %><.0>D' <.+E.!' 0' A<.+ C#%<.!' J@1?>' ? +#<+ 10!' <?' 5. 0C>' /1@0?' A.>P C>A+1.!' <''1.D>D' @ B' +@>' $>?+' 1AA1.+#0 + >?' 1''1$?>.P ,<+ 10!' ?' #0$1#0D>D' 0' C1B B>0D<+ 10?' 1''@ ?' .1E<%' A#A %!' J@1?>' >K+.<1.D 0<.E' A.1B ?>' 1'' 0+>%%>C+#<%' <0D' B1.<%' >KC>%%>0C>' @<D' '#.0 ?@>D' @ B' J +@' +@>' @<AA >?+!' <%<?' Z D>%#? ,>' <#=#. >?!' '1.' +@>' '#+#.>' D>?P + 0E' 1''@ ?' C1#0+.E T

E' +@>' D><+@' 1''/1@0' J +@1#+' @> .?!' +@>' ?#CC>?? 10' D>,1%,>D' 10' @ ?' >%D>?+' ? ?+>.!' +@>' I #>>0' 1''51.+#=<% '

L' % C ' 3$ ' 3, !' 3!' (FFF ,!' J ' :% ,4%C ' * 13)5!' 8, '5 ' 3%)%' 1!',,!',4!'F F!' (!'.,!' J ' !' !' ,($ ' * %' >' 1 %4 ' 0 !' I ! J %)(% ' *)%(,) ' 5 ' ' C ' 5 ' %')' 3!' DI!

' 1$ ' 4 ' % B 5' ' 0$), A') ' 1 %)' 3 0' 0' A ' F( )(' 0' ,)(' ? A)K' A % ' A% ' , ' 9%') ' ($3 5' 4C' A ' ,4 %' 5 ' 0'0 % C' B, A' BA,(A' A, ' 9 AC' $ ' B% ',)' A ' A%4, ' 0' '%,) ''A,1' 0 1' ,1 ' ' ,1 !' %@' A ' 4 ',)),)'' 0') ' 0' % C K' ' ' 9 ' 3$3, ' ,)' A ' 0 B,)'' 1 5 ' %,)!' Y' + %)5 ' ,)' 3$, ,T) F' % . ! #$ 2$ ' ($1' . %)> $ ' A 1,) ' ,. ' ') ' 3 >' %) ' ,. ' %5' 4 2$,$1' 0 >' $) ' A$1, , ' 5 ,)%,' 1,>'), , ' %$5%) ' F $) ' %5>' 1, %) $!%L' 3, ! F(.,,,!

' 8 3 ' B ') %,) 5' 0' %' 1% ' A , ' % ' A ' ,1 ' 0'? A)K' 5 % A ' % ' A, ' B,5 B' B% ' 0' 3 ')%) < 4$ ' A ' B ' 0 $; % 5' 4C' A ' 4 ,) ''5 ,. 5' 0' %' , >4 1' ,)0%) ' % ' A ')5' 0' %' 0 B' 1) A ! % '% ' 5,5') ' ( ) ,)$ ')'' ,)' 3%,)! A ' F3 ,)(5' A ' 1 '%00 (,)% ' % 1) ' 0 1' A ' @,)'' %)5' 2$)' BA ' 1%5 ' A ' %)' F; 1 C' ,4 %' 3 ., ,)! PN$>' , %!' 8, ! 1!' .!' ,4!' ,,,!' (!' ,.!X' $ ' A ' 1, A' 0 B ' ($ 5

0+>%% =>0C>!' @1J>,>.!' J<?' .>C> ,>D' ?110' <'+>.' +@<+'
>,>0+!' +@<+' +@>' .C@D#H>' 5@ % A!' J +@' +@>' .>?+%>??'
<B$ + 10' J@ C@' D ?+ 0=# ?@>D' @ B' 0' %<+>.' % '>!' @<D'
<??#B>D' '1.' @ B?>%'' <0D' @ ?' J '>' /1<00<' +@>' + +%>' 1''
X5. 0C>?' 1'' " <?+ %> ' >.D 0<0D' <0D' ?<$>%%<!' D ?P
=#?+>D' J +@' +@ ?' A.1C>>D 0=!' ?>0+' +1' .>F#>?+' +@>'
<++>0D<0C>' 1'' +@>' S 0=' <0D' I #>>0' 1'' 51.+#=<%' 0'
<?+ %>!' 0' 1.D>.' +1' ?>C#.>' <' .>C1=0 + 10' 1'' +@> .'
. =@+?' $E' +@>' 0<+ 10<%' %>= ?%<+#.>' @>' .1E<%' A< .!'
<CC1.D 0=%E!' 0' 1$>D >0C>' +1' +@>' ?#B B10?!' F# ++>D'
+@> .' C<A +<%' 1'' ?$10' ><.%E' 0' +@>' ?A. 0=' 1'' 6:4T'
0' +@> .' A.1=.>??' +@.1#=@' +@>' C1#0+.E!' +@>E' J>.>'
B<=0 ' C>0+%E' >0+>.+< 0>D' <+' +@>' C<?+%>?' 1'' +@>' =.><+'
<?+ % <0' %1.D?!' <0D' +1J<.D?' +@>' C%1?>' 1'' A. %' .><C@P
>D' +@>' <0C >0+' C +E' 1'' 1%>D1!' J@>.>' +@>' C1.+>?' @<D'
$>>0' C10,>0>D' +1' .>C> ,>' +@>B T

) ' ( )(, ' A 1 . ' ' A '
. '%)5' 4$ 5) 1 '(1 ;
),%' 0' A ' *% ,A%)' ($ ' '
5,00)' 0 1' A ' 0 '%)5' + ;
($)5' ,0 ' ' RBA,(A' A C' A%5'
4)' %((\$ 1 5' % ' A 1 <' %)5'
A C' 3 .%, 5')' A , ' 1, '
' $)' ' A ')% , . ' %)5' ,)'
A ' ($ ' 0' A ' C % ' DHH!'
A ' B% ' $4 2$) C' 1% , 5'
' A ' $@ ' 0' %. C' BA ' 5, 5'
B, A $ ' , $ ' ,)' ' A%)' A '
C % ' %)5' % '% ' 3%0 5' A '
1%,)5 ' 0' A ' ,0 ' ,)' B,5 B>'
A 5' 4 ,) '' %33 ,) 5' 4C' A ' 0%;
A ' A ' 13 ' ' A ' ' ;
.)1)' 0' A ' A %)5 '
BA,(A' A '%51,), 5' B, A'%4,;
, C!' A ' 5, 5' ,)' 6 !
W' % ,)%' A% ' %) (,4 5' 0 1'
A '% (A,. ' 0' 5 ' A ' B ,
0' \$11)' ' A% ' (, C')' A, '
((%,)!' ,%' 1!' ,,!' 3!' F.,!'
J N\$,, %' 8, ' 5 ' 8)%)5 '
1!' E! ,4!' ,,,!' (!' F.,,,! J 1% >'
5 G!' 8, ' 5 ' 5!' C' %4!' !'
(!' (,.! J * 5 ' 8, ' 5 ' \$;
'% ' 1!' ,.!' 3!' !' J *% 4%+% '
)% ' !' %A ' HI! J % ,%' C'
\$ %' \$ 3%' !' 1!' ,,!' 33!'
6 ' !
A ' % ' B , ' F3% ,% '
B, A' ' %' %, 0%(,)')' A '
% C' ,2\$ ' 4 . 5')' A '
(3 ,)' 0' A ' \$'\$ ' 1)>'
% (A' %)5' A , ' \$, ' 4C' A '
3%), A' . ,') ! Y #\$)' %;
4 % [' A ' %C ' Y' %33 % 5' %);
,)'')' A ' % 1' 0' A ' 5' 0%>!'
. \$, ' :\$, ' 5 ' *% 5)% '
* 1)5%5 ' 0')' %)5' 0' %'
\$'\$ ') 4 ' 1' ?\$%)' 5

'+>.ʻ +% >ʻ #?#<%ʻ 1<+@?ʻ 1'ʻ .>C1=0 + 10ʻ @<Dʻ $>>0ʻ +>0P D>.>D!ʻ J +@1#+ʻ 1AA1? + 10!ʻ $Eʻ +@>ʻ D ''>.>0+ʻ $.<0C@>?ʻ +1ʻ +@>ʻ 51.+#=#>?>ʻ A. 0C>?!ʻ +@>ʻ C1#.+ʻ <D"1#.0>Dʻ +1ʻ <.<=1??<!ʻ J@>.>ʻ +@>ʻ %>= ?%<+#.>ʻ 1'ʻ .<=10ʻ J<?ʻ <?P ?>B$%>Dʻ '1.ʻ <ʻ? B %<.ʻ A#.A1?>

1B>ʻ <AA.>@>0? 10?ʻ J>.>ʻ >0+>.+< 0>D!ʻ @1J>,>.!ʻ 1'ʻ +@>ʻ #0'<,1#.<$%>ʻ D ?A1? + 10ʻ 1'ʻ +@<+ʻ $1DE!ʻ ? 0C>ʻ +@>ʻ ?#CC>?? 10ʻ 1'ʻ '>B<%>?ʻ J<?ʻ 01+ʻ C1#0+>0<0C>Dʻ $Eʻ +@>ʻ <0C >0+ʻ#?<=>ʻ 1'ʻ+@>ʻ C1#0+.Eʻ <0Dʻ+@>ʻ .<=10>?>!ʻ <?ʻ <.+E.ʻ .>B<.H?ʻ 0ʻ 10>ʻ 1'ʻ@ ?ʻ >A ?+%>?!ʻ Qʻ J>.>ʻ J>%%ʻ H01J0ʻ +1ʻ $>ʻ <ʻ A>.+ 0<C 1#?ʻ .<C>!ʻ JU@1ʻ J1#%Dʻ %><,>ʻ 01ʻ ?+10>ʻ #0+#.0>Dʻ 0ʻ +@>ʻ B< 0+>0<0C>ʻ 1'ʻ+@> .ʻ C10P ?+ +#+ 10<% . =@+? RT

@>?>ʻ <AA.>@>0? 10?ʻ J>.>ʻ '#%%Eʻ .><% G>DLʻ '1.ʻ 01ʻ ?110>.ʻ J<?ʻ +@>ʻ 1$">C+ʻ 1'ʻ +@>ʻ A.>?>0+ʻ B>>+ 0=ʻ %< Dʻ $>'1.>ʻC1.+>?ʻ 0ʻ <ʻ ?A>>C@ʻ '.1Bʻ +@>ʻ+@.10>!ʻ J +@ʻ J@ C@ʻ A<.% <B>0+<.Eʻ $#? 0>??ʻ 0ʻ .<=10ʻ J<?ʻ <%J<E?ʻ &1A>0P >D!ʻ +@<0ʻ D>C D>Dʻ 1AA1? + 10ʻ J<?ʻ B<0 '>?+>Dʻ +1ʻ <ʻ A.1M2 C>>D 0=ʻ J@ C@ʻ +ʻ J<?ʻ D>C%<.>Dʻ @<Dʻ 01ʻ A.>C>D>0+ʻ 0ʻ +@> .ʻ@ ?+1.Eʻ @>ʻ ?#CC>?? 10ʻ 1'ʻ +@>ʻ C.1J0!ʻ +ʻ J<?ʻ C10+>0D>D!ʻ @<Dʻ $>>0ʻ % B +>Dʻ $Eʻ .>A><+>Dʻ +>?+<B>0+?ʻ 1'ʻ+@> .ʻA. 0C>?ʻ +1ʻ B<%>ʻ@> .?!ʻ<0Dʻ A.<C+ C>ʻ<0Dʻ A#$% Cʻ ?>0+ B>0+ʻ @<Dʻ ?1ʻ '<.ʻ C1 0C D>Dʻ J +@ʻ +@ ?!ʻ +@<+ʻ +@>ʻ <++>BA+>Dʻ , 1%<+ 10ʻ 1'ʻ +@>ʻ .#%>ʻ $Eʻ 5>+>.ʻ !ʻ 0ʻ'<M

$ %ʻ Aʻ % ʻ @ʻ(% ʻ ʻ %(2$%,)ʻA ʻB,Aʻ A ʻ %)@ʻ%)5ʻ ( )5,,)ʻ 0ʻ%(Aʻ 0ʻA,ʻ($) C; 1)ʻ%ʻ A CʻB ʻ3) 5ʻ,)ʻ 5 ʻ A%ʻ Aʻ 1,'Aʻ Aʻ4 ʻ %5+$ ʻA ʻ1 % $ ʻ 0ʻ( )5 ( ); ,)ʻ%)5ʻ($ Cʻ5$ʻ ʻ %(A4 %ʻ3 , $ʻ 4,'%,) [ʻA ʻ( ) ,;)$ ʻ Yʻ B,Aʻ % ʻ)%,) ʻ4$ʻ B,Aʻ A ʻ $'$ ʻ1 ʻ3 ,; $ʻ-Z Lʻ !ʻ % C ʻ 3$ʻ 3, !ʻ 3!ʻ(F(,.!ʻ J ʻ 4% (%ʻ C ʻ5ʻ %')ʻ 1!ʻ,,!ʻ0 !ʻ D!J %; ,%)%ʻ8, ʻ5ʻ 3%A%ʻ 1!ʻ,,!ʻ ,4!ʻFF.,,!ʻ(!ʻ,,,!

D ‘ ‘ 5 ‘ /

,1#.‘ 1’‘@ ?‘ 1JO‘ D<#=@+>.?!‘ @<D‘ A%#0=>D‘ +@>‘ 0<+ 10‘ 0‘ <‘ C , %‘ J<. ‘ +‘ J<?‘ ’#.+@>.‘ #.=>D!‘ +@<+‘ $E‘ +@>‘ J %%‘ 1’‘ +@>‘ ,>.E‘ %<?+‘ B10<.C@!‘ /1@O‘ !‘ +‘ J<?‘ A.1P , D>D‘ +@<+‘ +@>‘ C.1JO‘ ?@1#%D‘ D>?C>0D‘ +1‘ +@>‘ B<%>‘ ??#>‘ 1’‘@ ?‘ ?10‘ >.D 0<0D!‘ <0D‘ 0‘ D>’<#%+‘ 1’‘?#C@‘ +1‘ +@>‘ B<%>‘ ??#>‘ 1’‘ >.D 0<0D ?‘ D<#=@+>.?!‘ +1‘ +@>‘ >0P + .>‘ >KC%#? 10‘ 1’‘ +@>‘ ’>B<%>?’ +‘ <%%‘ >,>0+?!‘ +‘ J<?‘ $>++>.‘ +1‘ A1?+A10>‘ +@>‘ C10? D>.<+ 10‘ 1’‘ +@ ?‘ B<++>.‘ #0+ %‘ +@>‘ .>?#%+‘ 1’‘ +@>‘ I #>>0‘ 1’‘ 51.+#=<% ?‘ A.>=0<0CE!‘ +@>0‘ ’<.&‘ <D,<0C>D!‘ ?@1#%D‘ $>‘ <?C>.+< 0>DL‘ ? 0C>!‘ ?@1#%D‘ +‘ A.1,>‘ +1‘ $>‘ <‘ ?10!‘ <%%‘ D1#$+?‘ 1’‘ C10?+ +#P + 10<%‘ ,<% D +E‘ J1#%D‘ $>‘ .>B1,>D

0‘ <0?J>.‘ +1‘ +@>?>‘ 1$">C+ 10?‘ +‘ J<?‘ ?+<+>D!‘ +@<+‘ 01‘ >KA.>??‘ %<J‘ >K ?+>D‘ 0‘ .<=10‘ >KC%#D 0=‘ ’>B<%>?‘ ’.1B‘ +@>‘ ?#CC>?? 10L‘ +@<+‘ <0‘ >K<BA%>‘ @<D‘ <@><DE‘ 1CC#..>D!‘ <?‘ ’<.‘ $<CH‘ 0D>>D‘ <?‘ +@>‘ +J>%’+@‘ C>0+#.E!‘ 1’‘ <‘ F#>>0‘ J@1‘ @>%D‘ +@>‘ C.1JO‘ 0‘ @>.‘ 1JO‘ . =@+L‘ +@<+‘ +@>‘ <CH01J%>D=>D‘ A1J>.‘ 1’‘ ’>B<%>?‘ +1‘ +.<0?B +‘ +@>‘ . =@+‘ 1’‘ ?#CC>?? 10‘ 0>C>??<. %E‘ 0’>..>D‘ +@<+‘ . =@+‘ >K ?+ 0=‘ 0‘ +@>B?>%,>?L‘ +@<+‘ +@>‘ A.>?>0+‘ B10<.C@‘ @<D‘ D1#$+%>??‘ <?‘ C1BA>+>0+‘ <#+@1. +E‘ <?‘ @ ?‘ A.>D>P C>??1.?‘ +1‘ .>=#%<+>‘ +@>‘ %<J‘ 1’‘ 0@>. +<0C>!‘ <0D‘ +@<+‘ @ ?‘ <C+!‘ ?#AA1.+>D‘ $E‘ +@>‘ ?#A.>B>‘ <#+@1. +E‘ 1’‘ C1.+>?!‘ B =@+‘ ?>+‘ <? D>‘ <0E‘ ’1.B>.‘ D ?A1? + 10‘ 1’‘ +@>‘ C.1JO‘ L‘ +@<+‘ +@ ?‘ 0+>.’>.>0C>‘ J<?‘ C<%%>D‘ ’1.‘ $E‘ +@>‘ A.>?>0+‘ 1AA1.+#0 +E‘ 1’‘ B< 0+< 0 0=‘ +@>‘ A>.B<0>0+‘ #0 10‘ 1’‘ <?+ %>‘ <0D‘ .<=10‘ L‘ J +@1#+‘ J@ C@‘ +@>E‘ B#?+‘ 1+@>.P J ?>‘ .>+#.0‘ +1‘ +@> .‘ <0C >0+‘ D , D>D‘ ?+<+>!‘ <0D‘ C1BP A<.<+ ,>‘ 0? =0 ’ C<0C> T

L‘ %)(%‘ $1‘ %’!‘ * 11) %,,‘ 3!‘ ‘J‘ %)(%‘ * >

@>?>' <.=#B>0+?!' @1J>,>.' C1=>0+!' J>.>' '<.' '.1B' $> 0=' C10C%#? ,>' J +@' +@>' 1AA1? +>U A<.+E' L' <0D' +@>' D>$<+>' J<?' A.1+.<C+>D' +1' ?#C@' %>0=+@!' +@<+' ?<$>%%<!' BA<+ >0+' 1'' <0' 1AA1? + 10' +1' J@<+' +@>' A.<C+ C>' 0' @>.' 1JO' D1B 0 10?' @<D' +<#=@+' @>.' +1' .>=<.D' <?' +@>' 0<% >0<$%>' . =@+' 1'' @>.' D<#=@+>.!' 0C10? D>.<+>%E' >KP C%< B>D!' +' J1#%D' $>' $>++>.' +1' .>D#C>' +@>' C1#0+.E' $E' <.B?' <+' 10C>!' +@<0' >0D#.>' +@ ?' 0?1%>0C>' 1'' +@>' C1.+>? R' 1' J@ C@' 0+10 1' D>' 10?>C<!' +@>' ?<B>' C<,<% >.' J@1' ?A1H>' @ ?' B 0D' ?1' '><.%>??%E' +1' S 0=' @<.%>?' ' 10' @ ?' B<.C@' +1' <A%>?!' @<D' +@>' 0D>P A>0D>0C>' +1' .>A%E!' @<+' +@>' .<=10>?>' @<D' 10%E' <C+>D' <?' =11D' <0D' %1E<%' ?#$">C+?!' J@1!' <?' +@>E' J>.>' <CC#?+1B>D' +1' B 0D' +@> .' 1<+@?!' C10? D>.>D' J>%%' $>'1.>' +@>E' +11H' +@>B L' <0D' +@<+' +@>E' B#?+' C>.+< 0%E' ?+<0D' >KC#?>D' '' +@>E' B1,>D' J +@' C<#+ 10' 0' <0' <''< .' J@ C@' +@>E' '1#0D' ?1' D '' C#%+' +1'"#?+ 'E' $E' A.>P C>D>0+' 0' +@> .' @ ?+1.E RT' @ ?' $%#0+' >KA1?+#%<+ 10

)%(,) '5' ' C '5' %; ')' ,4!' ,!' (!' F.,,,!' J' % ,%)%' 8, !'5 3% % 1 ,,!' ,4!FF.,,!' (!' ,$! J N$, 4 ' 8, !' 1!' .!'0 !' 66 ' 6 !

' ,' 1% @%4 ' A%' A ' %; ') ' A $ 5' ' %5, C' A%.' %(2$, (5',)' A ' ,'A' 0'0 1% ' ' ( ). C' %' , ' ' A ' (B)' BA,(A' A C' ($ 5') ')+ C' A 1 . !'Q A, ' B%' 3 (, C' A ' 3 ,)(,3 ')' BA,(A' 5B% 5' !' '$3' A, ' (%,1' ' A ' A) ' 0' %)(4'%' 3 ,)(,3 ' ' 3$';)%) ' ' A ' (1 1) ' $ ' 0' ,)A , %)(' ' 4 %,)' %)C' ($);)%)(!' A ' F($,)' 0'0 ; 1% ' ,)' %')' ($ 5') ' 3 ;

)5' '4 0 ,15 5')'%)C' F3 ' %B '%' ,)' %)(4'4$' A '3 %(; ,(' B, A' A ' F(3 ,)' 0'%' ,)' ' F%13 ' A ' ( ) $, ' 5' B%' 2$, '%' $),0 1!' L' %)(% ' *)%(,) ' 5' %')' ,4!' ,,,!' (!F.,,,! J N$, %' 8, '5' 8)%)5 ' 1!' .!' ,4! '(!' ; ; ;

', '%'3 0' 0' A 'A,'A' 1' ,)' BA,(A' %4 %' A 5' A, ' ,); 5 3)5)' % 1%)' A%' B' 0,)5'A, ')%1 '1) ,) 5',)' A ' %1) '%1)'' A% 0'%' 5 G)' A ' BA 1' A ' 3% ,($% C' (1 1)5 5' 'A ' $((' 0 ' A , ' 1 , , $ ' %)5' C% ' .,(!' ' A ' 5 ($1)' ,)

6 6 8 8 * !

1 '+@ @10>?+ C1#.+ >.! >F#<%%E C.>D +<$%> +1 +@> ?1,>P .> =0 J@1 C1#%D U>0D#.>! <0D +@> ?#$">C+ J@1 C1#%D B<H> +! J<? .>C> ,>D 0 +@> '.<0H ?A . + 0 J@ C@ + J<? = ,>0! <0D A.1$<$%E 1A>0>D ?<$>%%< ? >E>? +1 @>.' 1J0 A.>C A +<0CE! <? J > ' 0D 01 '#.+@>.' <%%#? 10 +1 C1>.C ,> B><?#.>?

>'1.> <0E+@ 0=' J<? D>+>.B 0>D! +@> D ?C#?? 10 J<? ?#DD>0%E $.1#=@+ +1 < C%1?> $E <0 #0'1.>?>>0! <0D B1?+ B>%<0C@1%E>,>0+!O +@> D><+@ 1 '+@> I #>>0 1 '51.+#=<%! +@> #0'1.+#0<+> ?#$">C+ 1 ' + @<+ A. 0C>?a@U<D A1??>??>D < '>>$%> C10?+ +#+ 10 '.1B @>.' $.+@! J +@ < ?+.10=' +>0D>0CE +1 A#%B10<.E C1BP A%< 0+? ' @> @<D ><.%E '>%+ < A.>?>0+ B>0+ +@<+ ?@>' ?@1#%D 01+ ?#., ,> +@> $.+@ 1 '@>.' C@ %D L +@ ? '>>%b 0=' ?+.>0=+@>0>D <? ?@> <AA.1<C@>D +@> A>. 1D 1 '@>.' D>% ,>.EL <0D 0 %>?? +@<0 10> @1#.' <'+>.' +@<+ >,>0+! J@ C@ +11H A%<C> 10 +@> 7 .D 1 ' #=#?+ 6:4! ?@> >KA .>D 0 +@> <.B? 1 '@>.' <''% C+>D A<.>0+? T

@ ? $%1J' J<? <%B1?+ +11 B#C@ '1.' +@> #0@<AAE B1+@>.! J@1?> ?A . +? @<D 01+ E>+ @<D + B> +1 .<%%E ? 0C> +@> D><+@ 1 '@>.' 10%E ?10 @>! 0D>>D! >K@ P $ +>D +@> 1#+J<.D B<.H? 1 ' C1BA1?#.>! +>?+ 'E 0=' +@> >0+ .> .>? =0<+ 10 1 ' 10> J@1 @<D %><.0>D +1 $# %D @>.' @1A>? 1 '@<AA 0>?? 10 < $>++>.' J1.%D @> ?C@11%>D @>.?>%' ?1 '<.' <? +1 C10+ 0#> +1 +<H> <0 0+>.>?+ 0 <%% @>.' A#$% C D#+ >?! <0D +1 J<+C@ 1,>.' +@> C1B B10 J><% J +@ +@> ?<B> B<+>.0<% ?1% C +#D>

1 , ($ E%, 5 / ! HI! J G C)% * % ! 8, ,% 3! E 1! ,,! 33! ID ID/! J % ,% C $ % $ 3! $'! 1! ,,! Q * % 4%+%)% ! %) 3! 6 D!

<?‘ $>'1.>L‘ $#+‘ @>.‘ @><%+@‘ =.<D#<%%E‘ ?#0H‘ #0D>.‘ +@ ?!‘ <CC#B#%<+>D‘ %1<D‘ 1'‘ ?1..1J!‘ J@ C@‘ +@.>J‘ <‘ D>>A‘ ?@<D>‘ 1'‘ B>%<0C@1%E‘ 1,>.‘ +@>‘ >,>0 0=‘ 1'‘@>.‘ % '>

@>‘ 0'<0+!‘ J@1?>‘ % '>‘ @<D‘ C1?+‘ ?1‘ D><.!‘ A.1,>D‘ <‘ B<%>!‘ <0D‘ .>C> ,>D‘ +@>‘ 0<B>‘ 1'‘ =#>%!‘ 0‘ @101#.‘ 1'‘+@>‘ ?< 0+‘ 10‘ J@1?>‘ D<E‘ @>‘ ' .?+‘ ?<J‘ +@>‘ % =@+‘ 0‘ 1.D>.‘ +1‘ D ?? A<+>!‘ 0‘ ?1B>‘ D>=.>>!‘ +@>‘ =>0>.<%‘ =%11B‘ 1CC<? 10>D‘ $E‘ +@>‘ %<+>‘ C<+<?+.1A@>!‘ +‘ J<?‘ +@1#=@+‘ $>?+‘ +1‘ >K@ $ +‘ +@>‘ E1#0=‘ A. 0C>‘ $>'1.>‘ +@>‘ >E>?‘ 1'‘ @ ?‘ '#+#.>‘ ?#$">C+?L‘ <0D‘ @>‘ J<?‘ <CC1.D 0=%E‘ $1.0>‘ 0‘ +@>‘ <.B?‘ 1'‘@ ?‘ 0#.?>!‘ 0‘ <‘ B<=0 ' C>0+‘ % ++>.!‘+@.1#=@‘ +@>‘ ?+.>>+?‘ 1'‘ +@> C +E!‘ >?C1.+>D‘ $E‘ +@>‘ A. 0C A<%‘ 01$ % +E‘ ><?#.>?‘ J>.>‘ +@>0‘ +<H>0‘ '1.‘ 1$+< 0 0=‘ +@>‘ ?<0C+ 10‘ 1'‘ @ ?‘ %>= + B<+>‘ C%< B?‘ +1‘ +@>‘ C.1J0‘

@<+>,>.‘ D1#$+?‘ @<D‘ $>>0‘ >0+>.+< 0>D‘ 1'‘ +@>‘ ,<% P D +E‘ 1'‘+@>‘ B1+@>. ?‘ + +%>!‘ +@>.>‘ C1#%D‘ $>‘ 010>‘ J@<+P >,>.‘ 1'‘+@>‘ C@ %D ?!‘ ? 0C>‘ +@1?>‘ J@1‘ D>0 >D‘ +@>‘ . =@+‘ 1'‘ '>B<%>?‘ +1‘ 0@>. +‘ +@>B?>%,>?!‘ <DB ++>D‘ +@> .‘ A1J>.‘ 1'‘C10,>E 0=‘ #C@‘ <‘ . =@+‘ +1‘ B<%>‘ ??#>‘ ?‘ <‘ A.>% B 0<.E‘?+>A‘ +1‘ +@>‘ A#$% C‘ .>C1=0 + 10‘ 1'‘ +@>‘ A. 0C>!‘ +‘ J<?‘ 0>C>??<.E‘ +1‘ 0<B>‘ <‘ =#<.D <0‘ J@1R ?@1#%D‘ $>‘ >BA1J>.>D‘ +1‘ B<H>‘ +@>‘ 0>C>??<.E‘ >0=<=>P B>0+?!‘ <0D‘ +1‘ <C+‘ 0‘ @ ?‘ $>@<%'‘ @>‘ /#?+ C>‘ 1'‘ .<=10!‘ 0‘ @ ?‘ 1'' C <%‘ C<A<C +E!‘ <'+>.‘ D#>‘ >K<B 0<P + 10!‘ <AA1 0+>D‘ +@>‘ =.<0DMA<.>0+?‘ >.D 0<0D‘ <0D‘ ?<$>%%<‘ +1‘ +@>‘ 1'' C>‘ 1'‘=#<.D <0?‘ D#. 0=‘ @ ?‘ B 01.P +E!‘ J@ C@‘ J1#%D‘ >KA .>‘ $E‘ %<J‘ <+‘ +@>‘ <=>‘ 1'‘ '1#.P +>>0 T

L‘ %)(‘ * 11) % ,,‘ !‘ (% ‘ *)%(,) ‘ 5 ‘ %')‘ %')‘ 33!‘ 6 ‘ 6 ! J‘ %)> ,4!‘ 8,!‘ (! F,F! J :),1 ‘ % > E ! ! ‘

0 <+#.D<E! +@> 770D 1'' >A+>B$>.! J@>0 +@> F#>>0 @<D ?#'' C >0+%E .>C1,>.>D '.1B' <' ?>,>.> %%0>?? $.1#=@+ 10 $E @>.' %<+>' ?#''>. 0=?! +@> '1#.' <.B?' 1'' +@>' C1.+>?' 1'' .<=10 <??>B$%>D 0 +@>' @1#?>' 1'' D>P A#+<+ 10 <+' <.<=1??<L <0D >.D 0<0D <0D ?<$>%%<' B<D>' 1<+@ <?' =#<.D <0?' 1'' +@>' @> .M<AA<.>0+! $>'1.>' +@>' "#?+ C>! 01+ +1' >K>.C ?>' <0E "#. ?D C+ 10 J@<+P >,>.' 0 +@>' 0<B>' 1'' +@>' E1#0=' A. 0C>' D#. 0=' @ ?' B 01. +EL >0=<= 0=! B1.>1,>.! <?' '<.' <?' 0 +@> .' A1J>.! +@<+! 10 @ ?' C1B 0=' 1'' <=>! @>' ?@1#%D ?J><.' +1' .>?A>C+ +@>' %<J?' <0D % $>.+ >?' 1''+@>' .><%B! $>'1.>' >0+>. 0=' 10 <0E' 1''+@>' . =@+?' 1'' ?1,>.> =0+E' @ B?>%'' @>' '1#.' >?+<+>?' +@>0 +11H +@>' 1<+@ 1'' '><%+E +1' 5. 0C>' =#>%! <?' %<J'#% @> .' <0D ?#CC>??1.' +1' +@>' C.1J0 1'' .<=10L J +@' +@>' A.1+>?+<+ 10! +@<+' +' ?@1#%D 01+ $>' C10?+.#>D 0+1' <' A.>C>D>0+ '1.' >K<C+P 0=' ?#C@' <0 1<+@ @>.><'+>.' D#. 0=' +@>' B 01. +E'1'' +@>' @> .M<AA<.>0+' +@' ?#C@' J<+C@'#% <++>0+ 10 +1' C10?+ +#+ 10<% '1.B?' 1'' A.1C>D#.>' D D +@>' A>1A%>' 1'' .<=10 >0D><,1#.' +1' ?>C#.>' +@> .' % $>.+ >?L '1.B?' J@ C@' C10+ 0#>D +1' $>' 1$?>.,>D 0 %<+>.' + B>?! %10=' <'+>.' +@>?>' % $>.+ >?' @<D $>>0 ?J>A+' <J<E T

! 1%5 * 4 % * (F F,.! J .% $: 1 (,$ 4! : ! =,1),,' 0 ! UE! J' %)$G%' 8, ,% 5 %')' ,4!,' (F!,F! $ %)(% *)%(, ' $4,' $3 %! J' %)(* 1 1) %,,' 33! 6 6 ! A .)(0 A %'); '0 A ,',) ,$,),',' A B)' ,)' A ,' 4 .%)(0 A 1 ,) ,'),0,(%)' (1), ! ; 1% @%4 ',) %)(' 0 A,' ((\$; 5',)' A 'C % ' DI ' % ' % %; ' % BA)' A '2\$)' A%.,)'' 4)'( ) , \$ 5 #"!# !2 # #K ' 0 A ' @,)'5 1 ' %)5 5\$ C 2\$%,0, 5 ' A 5 (',)' A ' %4)(' 0 A ' @\$,'' A ' A\$; 4%)5 BA ' 4C A ' %)(,) ' %B ' 0 A ' %)5 B% ' 2\$, 5 ' 3 ; ,5 ' . ' ,' ,)' 3)' ,' B%

0' +@>' B10+@' 1'' /<0#<.E' 1'' +@>' >0?# 0=' E><.' +@>' E1#0=' A. 0C> ?' ?#CC>?? 10' J<?' D#%E' C10' .B>D' $E' +@>' C1.+>?' 1'' <?+ %>!' <0D' 0' +@>' '1%%1J 0=' <.C@' $E' +@<+' 1''51.+#=<%L' +@#?!' '1.' 10C>!' +@>' C.1J0?' 1''+@>' +@.>>' B10<.C@ >?' 1'' <?+ %>!' .<=10!' <0D' 51.+#=<%' J>.>' ?#?A>0D>D' 1,>.' 10>' @><D ' @>' 51.+#=#>?>!' .>+< M' 0=' +@>' $ ++>.0>??' 1''<0C >0+' . ,<%.E!' %11H>D' J +@' D ?P +.#?+' <+' +@>' A.1?A>C+' 1''<0' #0 10!' '><. 0=!' J +@' ?1B>' .><?10!' +@<+' +@>' BA1.+<0C>' 1''+@>' %>??>.' ?+<+>' J1#%D' $>' J@1%%E' B>.=>D' 0' +@<+' 1'' +@>' =.><+>. ' #+' +@>' #0+ B>%E' D><+@' 1''+@>' D>?+ 0>D' @> .' 1''+@>?>' @101#.?!' J@ C@' +11H' A%<C>' $>'1.>' @>' @<D' C1BA%>+>D' @ ?' ?>C10D' E><.!' .>B1,>D' +@>' C<#?>?' 1''"><%1#?E!' <0D' D>'><+>D' +@>' 10%E' C@<0C>' J@ C@' @<D' >,>.' 1CC#..>D' 1''$. 0= 0=' #0D>.'+@>' ?<B>'.#%>'+@.>>' 0D>A>0D>0+'0<+ 10?!' J@1B' <' C1BB10' 1. = 0!' =>1=.<A@ C<%' A1? + 10!' <0D!' <$1,>' <%%!' .>?>B$%<0C>' 1'' B<00>.?!' ?>0+ B>0+?!' <0D' %<0P =#<=>' J1#%D' ?>>B' +1' @<,>' 1. = 0<%%E' 0+>0D>D' +1' '1.B' $#+' 10> T

5 1 5') (%C' ' 4%,)' %' 1%5 G' 8, ' 5' ' C ' 0 1%' %(' 0' A' ', %$ ' 0 ' *% ,(' !' (!' (,.! J *% 4%; 3),)'' A ' 5 ' 0 ' A ' %51, ; +% ')% ' !' %A ' HH!' J' ,)! J ' %)(% ' 5 '5' ' >' N$, %' 8, ' 5 ' 8)%)5 ' ' (5 ')' * ' 0 !' I ' I ! *% ,(' 1!' .!' ,4!,,,!' (!FFF,,,!' Q' % ,%' C' $ %' $ 3%' J %)5 .% ' 8, ' 5 ' *% ' E!' $'!' 1!' ,,!' 33!' 6 D!' 6 /! J 1!' ,!' 3!' D!

5 ‘

8‘ ‘ * ‘ N !>>>> ‘ ‘ = !‖

* * * ‘ !

‘ +@>‘ $>= 00 0=‘ 1’‘ 6 : 8!‘ +@>‘ ?1 , >. > =0?‘ %1?+‘ +@> .‘ 1%D‘ <0D‘ '< +@'#%‘ B 0 ?+>. !‘ +@>‘ .<0D‘ <. D 0<%‘ 1’‘ A< 0!‘ 10‘ 5>D. 1‘ 10G<%>G‘ D>‘ >0D1G<‘ ‘ >‘ J<?‘ +@>‘ '1#. +@‘ ?10‘ 1’‘ +@>‘ C>%>$. <+>D‘ <. F# ?‘ 1’‘ <0+ %%<0<!‘ <0D‘ J<?‘ A%<C>D‘ $E‘ @ ?‘ +<%>0+?‘ <+‘ +@>‘ @><D‘ 1’‘ <‘ '<B %E!‘ >, >. E‘ B>B$>.‘ 1’‘ J@ C@‘ B#?+‘ $>‘ <%%1J>D‘ +1‘ @<, >‘ >K@ $ +>D‘ <‘ .<. >‘ #0 10‘ 1’‘ A#$% C‘ <0D‘ A. , <+>‘ , .+#>‘ ‘ @>‘ C<. D 0<%‘ .><C@>D‘ +@>‘ <=>‘ 1’‘ ? K+EM? K!‘ J@>0‘ @ ?‘ D<E?‘ J>. >‘ +>. B 0<+>D‘ <'+>.‘ <‘ %10=‘ <0D‘ A< 0'#%‘ %%0>??!‘ 10‘ +@>‘ +@‘ 1’‘ /<0#<. E!‘ <+‘ @ ?‘ A<%<C>‘ 1’‘ #<D<%<"<. < T

0‘ +@>‘ #0@<AAE‘ '>#D?‘ $>+J>>0‘ >0. E‘ ‘ <0D‘ @ ?

L‘ : % ,)5 G‘ 5 ‘ * % 4%+% ‘)>‘ % ‘ f‘ %) ‘ H6!> J % %G% ‘ 5 ‘)5 G%‘ *), (%‘ 5 ‘ : %)‘ * % >‘ 5)% ‘ ,4!‘ ,!‘ (!‘ F . !‘ F . ,!‘ N$, %‘)% ‘ 5 ‘ %') ‘ 1 ‘ .!‘ 0 ‘ ! J $ '% ‘ * % ‘ E%) , !‘ , . !

8, ‘ 5, 5 ‘ B% ‘ %)‘ %4 (‘)‘ A ‘ @,5) C ‘ BA, (A‘ ( )0,) 5‘ A, 1‘ ‘ A ‘ A $ ‘) % C‘ %‘ C % ‘ 4 0 ‘A, ‘5 % A!‘ 9 A)‘ A, ‘ .)

A%33) 5 ‘%‘ BA, ‘ (‘ 0‘ F %; 5,)% C‘ 1%'), $5 ‘ %)5‘ 3); 5 $ ‘ A%3 5‘ 3 (, C‘ ,@ ‘ A% ‘)‘ A, ‘ % 1 ‘ B% ‘)‘ ,)‘ A ‘ A %; .) ‘ 5, (C‘ . ‘ A, ‘ A $ ‘ 4C‘ %‘ (B5‘ 0‘ 3 (% ‘ 0 ‘ 1 ‘ A%)‘ B ‘ A $ ‘ %‘ 0$ ‘ %(($) ‘ 0‘ BA, (A‘ B% ‘ 5$ C‘ %) 1, 5‘ ‘ 1 ‘ 4C‘ A ‘ 3%), A‘ ($ ‘ %)5‘ A% ‘ 4 %,) 5‘ % C‘ (5, ‘B, A‘ A ‘ 3 ,)(,3% ‘ 3%), A‘ A, ,%) !

E1#0=>.’ $.1+@>.!’ %A@10?1!’ +@>’ C<.D 0<%’ @<D’ ’.>P B< 0>D’ ’< +@’#%’ +1’ +@>’ ’1.B>.L’ $#+’ 10’ +@>’ D><+@’ 1’’ +@<+’ B10<.C@!’ @>’ +@.>J’ @ ?’ J@1%>’ J> =@+!’ J +@’ +@<+’ 1’’@ ?’ A1J>.’#%’ ’<B %E!’ 0+1’ +@>’ ?C<%>’ 1’’ ?<$>%%<!’ J@>+@>.’ 0’%#>0C>D’ $E’ <’ C10, C+ 10’ 1’’ @>.’ ?#A>. 1.’ C%< B?!’ 1.’ @>.’ C<A<C +E’ ’1.’ =1,>.0B>0+’ @ ?’ J<?’ <’ B1?+’ BA1.+<0+’ <CF# ? + 10’ +1’ +@>’ .1E<%’ C<#?>L’ <0D’ >0D1G< ?’ C10?# B B<+>’ +<%>0+?’ ’1.’ $#? 0>??!’ .>P C1B B>0D>D’ $E’ +@>’ B1?+’ <=.>><$%>’ <DD.>??!’ ?>C#.>D’ @ B’ +@>’ C10’ D>0C>’ 1’’$1+@’ >.D 0<0D’ <0D’ ?<$>%%<!’ J@1’ @<D’ %10=’ $>>0’ D ?=#?+>D’ J +@’ +@>’ .<?@’ <0D’ <..1=<0+’ $><. 0=’ 1’’+@> .’ 1%D’ B 0 ?+>.’ <. %%1

0’ +@>’ D><+@’ 1’’+@<+’ +#.$#%>0+’ A.>%<+>!’ >0D1G<’ ?#CC>>D>D’ +1’ +@>’ <.C@ >A ?C1A<%’ ?>>’ 1’’ 1%>D1’ ?’ 0>J’ ?+#<+ 10’ 0<+#.<%%E’ %>D’ +1’ ?+ %%’ B1.>’ 0+ B<+>’ .>%<+ 10?’ J +@’ +@>’ ?1,>.> =0?!’ J@1’ #0 ’1.B%E’ D>P ’>..>D’ +1’ @ ?’ >KA>. >0C>!’ C10?#%+ 0=’ @ B’ 10’ <%%’ BP A1.+<0+’ B<++>.?!’ 01+’ B>.>%E’ 1’’ <’ A#$% C!’ $#+’ 1’’ <’ A. ,<+>’ 0<+#.>’ 0’ ?@1.+!’ @>’ =< 0>D’ ?#C@!’ <?C>0P D>0CE’ 0’ +@>’ C<$ 0>+’ D#. 0=’ <’ %10=’ B 0 ?+.E’ 1’’ B1.>’ +@<0’ +J>0+E’ E><.?!’ +@<+’ @>’ J<?’ A%><?<0+%E’ C<%%>D’ $E’+@>’C1#.+ >.?’+@>’Q’+@ .D’ S 0U’1’’ A< 0 R’T

L’ 8’ %1’ 3 [’ %C’ ; 1),,’0 !’H!X’ % C’) ,(,)’’ .% ’ : 1 G’ 0’A,1’ W$(%, ,’ A’(%5,)%K’5 %A’4 B’A’ 1$1’$1)%%,$1’$10 $)%’ 0 ,’B,)’4, 0’4$’(13 A),.’ $)’5,’),%,’ 3)5 1’2$a’ 3%) ’C,(’)’A,1!’Y’ ,,’:)’ ,)’, ’ 1%1)%’ $1 1%’ %)’ %$’)5 ,%’5 1$’ 3)5 ’ ,)(5,4, 1’%),1,’ $4,1,% 1’ ’ $(,5%’0%F’ 3 ,,’2$)’$),’ ($1’3%,’1 1 1T0%(,,% ’ ’ . %(4%’8, 3%),%’2$)’F’ ’%) ,%2$’( )+$)F %’$’1 , ’ ’, ,%1’3,)(,3’.) %4%)’ ($1’,)’ 3$4,(% $1 1’3 F,’ $’2$ 1’ 5’ (%5,) $’(’ 1$1’%5’ $3 1$1’$ 2$’5, 1’ ’%1’ ,4,’ ’ ’ ,%4% $![’ J’!)$,![’P ’ 4$’: ,’=,> 3$’ 3, % $1’ 3!’(.,,,!

@> B 0 ?+>. D D 01+ <$#?> +@> C10' D>0C> ?1 =>0>.A#?%E .>A1?>D 0 @ B > C<%%>D +@> <++>0+ 10 1 '' @ ? .1E<% B ?+.>?? +1 1$">C+? B1?+ D>?>., 0= + ? , >J ? J>.> 0<+#.<%%E =.<0D <0D %1'+EL <0D! '' @> ?1B>+ B>? E >%D>D +1 +@> '<0<+ C<% BA#%?> 1'' +@> <=>! @> 0>,>.' '< %>D +1 ?#AA1.+ @>.' @><.+ %E 0 >,>.E =>0>.1#? >0+>.A. ?> '1.' +@> <D,<0C>B>0+ 1'' @>.' A>1A%> ' @>0 .< ?>D +1 +@> .<0H 1'' A. B<+> 1'' A< 0! @> 0D#%=>D @ ? 0<+#.<% 0C% 0<+ 10 '1.' A1BA <0D B<=0 ' C>0C> ' >' %%>D @ ? A<%<C> J +@ A<=>? ?>%>C+>D '.1B +@> 01$%>?+ '<B % >? 0 +@> H 0=D1B! J@1B @> C<.>'#%%E >D#C<+>D ' >' B< 0P +< 0>D <' 0#B>.1#? $1DE 1'' <.B>D .>+< 0>.?! J@ C@! '<.' '.1B $> 0= <' B>.> >BA+E A<=><0+! '1.B>D <' B1?+ >''>C+ ,> C1.A? '1.' A#$% C ?>., C> 10 <%% .>F# P ? +>' 1CC<? 1O?' >' D ?A>0?>D +@> B B>0?>' .>,>0#>? 1'' @ ? $?@1A. C J +@ +@> ?<B> B#0 ' C>0+ @<0D J@ C@ @<? ?1 '.>F#>0+%E D ?+ 0=# ?@>D +@> A<0 ?@ " .>%<CE! >0C1#.<= 0= %><.0>D B>0! <0D >0D1J 0= A#$% C O?+ +#+ 1O?' @> B1?+ .>B<.H<$%> 1'' +@>?>' J>.> +@> C1%%>=> 1'' <0+< .#G <+ <%%<D1% D! <0D +@> @1?A +<% 1'' +@> ?<B> 0<B> '1.' '1#0D% 0=? <+ 1%>D1! +@> >.>C+ 1O 1'' J@ C@! C1BA%>+>D <+ @ ? ?1%> C@<.=>! C10?#B>D B1.> +@<0 +>0 E><.? ><C@ T

@> C<.D 0<%! 0 @ ? E1#0=>.' D<E?! J<? 1CC<P ? 1O<%%E ?>D#C>D $E +@1?> <B1.1#? A.1A>0? + >? 0 J@ C@ +@> A<0 ?@ C%>.=E '.>>%E 0D#%=>D! C10+<B P 0<+>D! A>.@<A?! $E +@> >K<BA%> 1''+@> .' <@1B>+<0

0> =@$1#.?' >' %>'+' ?>,>.<% C@ %D.>0' $E' @ ?' <B1#.?' J +@' +J1' %<D >?' 1'' .<0H!' '.1B' J@I 0' ?1B>' 1'' "+@>' $>?+' @1#?>?' 0' +@>' H 0=D1B' <.>' D>?C>0D>D T' ' C@<.<C+>. ?+ C' <0>CD1+>' ?' .>C1.D>D' 1'' @ B' 0' .>%<P + 10' +1' +@ ?' B<++>.' 0' >CC%>? <?+ C!' J@1' 10>' D<E' D>% ,>.>D' <' D ?C1#.?>' 0' @ ?' A.>?>0C>!' +11H' 1CC<? 10' +1' <D,>.+' +1' +@>' %<K +E' 1'' +@>' <=>!' 0' =>0>.<%+>. B?' 0D>>D!' $#+' $><. 0=' +11' A>.+ 0>0+' <0' <AA% C<+ 10' +1' +@>' C<.D 0<% +1' $>' B ?+<H>0' @>' <++>0D<0+?' 1'' +@>' %<++>.' $1 %>D' J +@' 0D =0<+ 10' <+' +@>' A.><C@>. ?' '.>>D1B!' J@1B' +@>E' D>+>. B 0>D' +1' C@<?+ ?>' '1.' @ ?' A.>?#BA+ 10' @>E' A.#D>0+%E!' @1J>,>.!' A1?+A10>D' +@ ?' #0+ %' +@>E' ?@1#%D' ?>>' J@<+' >''>C+' +@>' D ?C1#.?>' @<D' 10' +@> .' B<?+>.' @>' C<.D 0<%!' T'<.' '.1B' $>P +.<E 0=' <0E' .>?>0+B>0+!' +11H' 01' 1+@>.' 01+ C>' 1'' +@>' A.><C@>.' +@<0' +1' ?>0D' @ B' <' D ?@' 1''C@1 C>'=<B>!' J@ C@' @<D' $>>0' ?>.,>D' #A' <+' @ ?' 1J0' +<$%>!' J@>.>' @>' J<?' >0+>.+< 0 0=' <' A<.+E' 1'' '.>0D?' +@<+' D<E!' <CC1BA<0E 0=' +' <+' +@>' ?<B>'+ B>!' $E' J<E' 1''?<#C>!' J +@' <' ?#$?+<0+ <% D10<+ ,>' 1'' =1%D' D1$%<?L' <0' <C+' 1'' @.?+ <0' C@<.+E' 01+' <+' <%%' +1' +@>' +<?+>' 1'' @ ?' 1J0' ?>.,<0+?' +' J.1#=@+' +?' >''>C+?' 10' +@>' J1.+@E' D , 0>!' J@1' <+' 10C>' ?<J'+@>' >..1.' 1'' @ ?' J<E?!' <0D!' +@>' 0>K+' + B>' @>' B1#0+>D' +@>' A#%A +!' +11H' C<.>' +1' '.<B>' @ ?' D ?C1#.?>' 0' ?#C@' <' B<00>.' <?' +1' C1#0P +>.<C+' +@>' '1.B>.' #0'<,1#.<$%>' BA.>?? 10?!' +1' +@>

: %)'.%)'C' 1$C' F3 >' A,+ '.%) [' \(!' A)' 0 ; $,,) %5 ' C' 3 $5) ')') ' >' B '%'0$ ') ,(' 0' A, ' ' %(; (, [' %C ' ., 5 ' 0' A ' (% 5,; ' 3 ')C!' J '#$,)($%')% ')% ' Z'># ' ' ,"# ! &' # &' #2' !' % !' '2$,)(!' '5,% !' I! #&' #&! ', ' $. '

>O+ .>‘ ?<+ ?'<C+ 1O!‘ ''‘O1+‘>D ' C<+ 1O!‘1''@ ?‘ <#D >OC>‘ Q‘ 1J M<MD<E?!R‘ ?<E?‘ +@>‘ @1O>?+!‘ $ 1=.<A@>.‘ J@1‘ .>A1.+?‘ +@>‘ OC D>O+!‘ @ B?>%''‘ <‘ % 0><%‘ D>?C>OD<O+‘ 1''‘+@>‘ C<.D O<%!‘ Q‘+@>‘ A.><C@>.‘ J1#%D‘ O1+‘ @<,>‘ >?P C<A>D‘ ?1‘ ><? %E‘ OD‘ J +@‘ =11D‘ .><?1OL‘ '1.‘ +@>‘ @1%E‘ 1?A>%‘ ?@1#%D‘ $>‘ D ?C.>>+%E‘ A.><C@>D!‘ T C#B‘ =.<O1‘ ?<% ?!‘ +@<+‘ ?‘ +1‘ ?<E^‘ J +@‘ +@>‘ D>C1O B‘ <OD‘ D>'>.>OC>‘ D#>‘ +1‘ B<">?+E‘ <OD‘ B>O‘ 1'‘ @ =@‘ >?P +<+>ZR T

@>O‘ <.D O<%‘ >OD1G<?‘ %%O>??‘ <??#B>D‘ <O‘ <%<.B O=‘ <?A>C+!‘ +@>‘ ?1,>.> =O?‘ .>B1,>D‘ +@> .‘ .>? P D>OC>‘ +1‘ +@>‘ O> =@ *1#.@11D‘ 1'‘ #<D<%<"<.<!‘ J@>.>‘ @>‘ J<?‘ C1O' O>D‘ @>‘ H O=‘ <OD‘ F#>>O!‘ >?A>C <%%E‘ +@>‘ %<++>.!‘ JU+@‘ +@>‘ <''>C+ 1O<+>‘ C1OC>.O‘ J@ C@‘ ?@>‘ B<O '>?+>D‘ '1.‘ B1.>‘ +@<O‘ 1O>‘ 1''@>.‘ '< +@'#%‘ ?#$">C+?!‘ #?>D‘ +1‘ , ? +‘ @ B‘ O‘ A>.?1O!‘ +>?+ 'E O=‘ @>.‘ ?EBA<+@E‘ '1.‘ @ ?‘ ?#''>. O=?!‘ <OD‘ $>O>' + O=‘ $E‘ +@>‘ % =@+?‘ 1''+@>‘ ?<=<C 1#?‘ B OD‘ J@ C@‘ @<D‘ ?1‘ %1O=‘ @>%A>D‘ +1‘ =# D>‘ @>.‘ @>‘ ?+ %%‘ '#.+@>.‘ ?@1J>D‘ @>.‘ .>=<.D‘ '1.‘ @>.‘ 1%D‘ B O ?+>.‘ $E‘ C1OD>?C>OD O=‘ +1‘ <CC>A+‘ +@>‘ 1'' C>‘ 1''@ ?‘ >K>C#+1.!‘ J@ C@‘ ?@>‘ A#OC+#<%%E‘ D ?C@<.=>D!‘ ?#A>. OP +>OD O=‘ +@>‘ D ?A1? + 1O‘ 1''@ ?‘ >''>C+?‘ <CC1.D O=‘ +1‘ @ ?

Q‘ %%G%‘5‘)5 G%‘ * >‘),(%5‘ : %)‘ *%5)%‘ ,4!‘,,!‘ (%3!‘4(.,!

A‘ (‘ 5‘ %%G%‘5‘)5 G%‘4, ' %3AC‘ 0‘A, ‘ , ; $, $‘ % ,. ‘ , ‘%‘ . C‘0%, '3 (,1)‘ 0‘A‘ 3%), A‘ C‘ 0‘ 4 @>1%@,)''‘,)‘ %)(,)‘ ,1 ‘) ‘ .)‘ 1‘ ‘ $'' ‘%) >‘ A‘B, A‘%4 $‘%‘ 1$(A‘(A>‘ ,)‘%‘ A‘ AC1 ‘ 0‘A‘8 $ ‘ A%‘?%(@‘4$, !‘ A ‘,‘ (% (C‘ %‘3%(‘ ‘3)%'‘ 0‘) ‘ A%‘ A‘ ' %)5‘ (%5,)%‘B%‘4 $'A‘ ,)‘( ) %(‘B, A‘,)‘ A‘ ($ ‘ 0‘ A, ‘ ,0 ‘ BA ‘ A, C‘ , ‘) ‘ 1%5‘ A‘ A 1‘ 0‘3 0$‘5, > %,)! % C‘0,0 C‘(A%3 ‘ % ‘ %@)‘$3‘0 ‘ F%13 ‘B, A‘ A‘5, ,)'$, A 5‘ 1)‘BA‘' %>‘ 5$% 5‘%‘ A‘ (' ‘ 0‘ %) %‘ * $G!

+>?+<B>0+!T' <0D' A<.+ C#%<.%E' +@>' >.>C+ 10' 1 '' +@>' ?+<+>P %E' @1?A +<%' 1 '' <0+<' .#G' $>'1.>' B>0+ 10>D!' 01+' <' ?+10>' 1 '' J@ C@' J<?' %< D' $>'1.>' @ ?' D><+@ '

0' 10>' 1 '' @>.' 0+>., >J?' J +@' +@>' DE 0=' B 0 ?+>.!' +@>' F#>>0' .>F#>?+>D' @ ?' <D, C>' .>?A>C+ 0=' +@>' 01B P 0<+ 10' 1 '' @ ?' ?#CC>??1.' @>' C<.D 0<%!' 0' .>A%E!' ><.P 0>?+%E' C<#+ 10>D' @>.' <=< 0?+' .< ? 0=' <0E' 10>' 1 '' +@>' A. 0C A<%' 01$ % +E' +1' +@ ?' D =0 +E!' <%B1?+' +11' >K<%+>D' '1.' <0E' ?#$">C+!' <0D' J@ C@!' J@>0' C1B$ 0>D' J +@' A1J>.'#%' '<B %E' C100>K 10?!' J1#%D' >0<$%>' <' B<0' 1 '' '<C+ 1#?' D ?A1? + 10' +1' D>'E' +@>' .1E<%' <#+@1. +E' +?>%'!' <?' +@>E' @<D' 10C>' $ ++>.' >KA>. >0C>' 0' +@>' C<?>' 1 '' .C@$?@1A' <U %%1' 0' $> 0=' A.>??>D' +1' 0<B>' +@>' 0D , D#<%' J@1B' @>' +@1#=@+' $>?+' F#<% ' >D' 0' >, > E' A1 0+' 1 '' , >J' '1.' +@>' 1 '' C>!' @>' ?' ?< D' +1' @<,>' .>C1BP B>0D>D' .<E' .<0C ?C1' ; 0>0>G' D>' ?0>.1?!' <' '. <.' 1 '' +@>T .<0C ?C<0' 1.D>.!' <0D' C10'>??1.' 1 '' +@>' F#>>0' ?' +@ ?' >K+.<1.D 0<.E' A>.?10<=>' >K>.C ?>D' <' B1.>

$' Y)' A (' 3 % (,3$$17K %C' %(, $' B, A' $ A' Y'%1,>' ($1' 1$)$' ' 3 2T$,' 5 >' 0$)($1' ,')%.' 2$ $' 5' 2$%' $,' 1 %,), ' 2$%' 1%)5%. ,' F 2$,![J))% ' ,4!',,!' (!' FF,!

' !' % C,' 3$' 3, >' % $1' 3!(F,,,! J *% 4%+%' ')%>' ' 5')%)5' ' *% ,(' !' %) ' HD! J % %G%' 5')5 G%' *),(% 5 ' : %)' *% 5)% ' ,4!' ,,!' (!' F .!

' 0 $)5,)'' A 3, %' 5 ') ' 1' ' A%.' (1 '%1, ',)' 3%,)' BA '%((5,)'' ' % %; G% ' A' B (A 5' 3%) ' 0 ; 2$) C' 5 C 5' A ,' 00 3,)'' 4C' (% ,)'' A 1',) ' B ' %)5' 3, ' ' F3 ,)'' A 1',)' 5 ' 3%(' 'PA' 0' 0%1,) ' Y' #" ' ' A' 4 . ' Y' %,5' A 1' % ' A' 5 ' 0' A' (A$ (A ' BA ' A C' B ' ' 0)' B , 5' ' 5 % A' 4C' 5 '' %)5' A '%),1% ![' A' :,%)5' *% 5,)% K') 3A B' BA' 0 $)5; 5' %' ,1, % ',) ,$,)' , ' %,5' ' A%.' 0$), A 5' %)' % C $1' ,)' A' ($ ' 0' A, ' ,0' ') ' ' A%)' A,)'Q A $ %)5' 0' A ' , ' .,(,1 - J' 4,5!' (!' F,!

BA1.+<0+ C10+.1 1,>. +@> D>?+ 0 >? 1' @ ? C1#0+.E +@<0 <0E 1+@>. ?#$">C+ D#. 0= +@> .>B< 0D>. 1'+@> A.>?>0+ .> =0! + J $> 0>C>??<.E +1 A#+ +@> .><D>. 0 A1??>?? 10 1' @ ? @ ?+1.E T

; B >0>G D> ?0>.1?! 1. ; B >0>? <? @> ? #?#<E C<>D $E @ ? C10+>BA1.<. >?! J<? $1.0 <+ +@> + ++> +1J0 1' 1.D><=#0<! 0 +@>E><. 6 !' 1' <0 <0P C >0+ $#+ D>C<E>D '<B E'/ > J<? ><.E D>?+ 0>D $E @ ? A<.>0+? '1. +@> C@#.C@! <0D! <'+>. ?+#DE 0= =.<B B<. <+ C<<! J<? .>B1,>D <+ '1#.+>>0 +1 +@> #0 ,>.? +E 1' <<B<0C< >.> @> J>0+ +@.1#=@ +@> .>=#<. C1#.?> 1' 0?+.#C+ 10 +@>0 A#.?#>D! D>P ,1+ 0= @ B?>' <?? D#1#?E +1 +@> C , <0D C<010 <J L <0D <+ +@> >0D 1'? K E><.? .>C> ,>D +@> D>=.>>

Q C G 5)5 G * >),(5 : ! *5) ,4! ,! (! F .,! J .$: 1 (,$ 4$: , =,1),, 0 I< 5! * 13$, 6 H!

A 5C,)' (5,) , %,5 A. (11)5 5 1)' A A,)' A A 2$) A $5 3,)C B)' 5) ?);) %) +% 4C 1% C,)' A B, A A C $)' ,)(0 $; , < BA,(A $' ,) B , 4 %K % A A 4 @ 00 A ( ). %,) > %C; ,)' Y A ' 5 1) B)5 5)5 % @ 5))) ![

, ,)'$ % (A, A $5 A. 4 $)5 5 1 B) C C % ,) A 5% L 0 =,1) K 4, A BA,(A A 1%@ D6/! P8, 5$ *% 5! =,1) , .,! 3! ,,,!X! , ,) ,)'$ % A% % , A $5! 8, 5$,>), 5 =,1) ! , .! ,!)! ,,,!

0 A A) $ %4 F %(,) 0 =,1) , ,) , 1 % 5 ,) ?$%) E '% %K . % A)5 0 A * 13$) ,%) C'

Y 1,) *,) $ (% 5 , 3 3%) $1 1 , , 0%($ (% , ,3 $, ![

%C 5 5 #$,) %), %C)5 G% 1%@ % 5C ') %; ',(% 0 A, A 0 BA,(A ",)' %C ",)' 3,) *A% 1%') %)5 A CT B ; A, % A 3 (%4 ! P 1,% 5,(% ,% 33! 6>T 6!X ((5,)' :)G% 5 ., 5 A, 0% A B% % 3 A,5% ' BA 3)5,)' A, , $4 %)( ) A 5$(%,) 0 A, (A, 5) B% 4 ,' 5 %@ $3 A 3 0 ,) 0 %) %5. ; (% #$,)($%')% !

1''$<C@>%1.' 0' ><C@' 1''+@>B!' <' C .C#B?+<0C>' <+' +@<+' + B>' 1''.<.>' 1CC#..>0C> T

@.>>' E><.?' <'+>.' F# ++ 0=' +@>' #0 ,>.? +E!' +@>' E1#0=' $<C@>%1.' .>B1,>D' $E' +@>' <D, C>' 1''@ ?' A<.>0+?' +1' 1B>!' <?' <''1.D 0=' <' $>++>.' ' >%D' '1.' >CC%>? <?+ C<%' A.>'>.B>0+' +@<0' @>' C1#%D' ' 0D' <+' @1B>' >.>' @>' ?>>B?' +1' @<,>' <++.<C+>D' ?1B>' 01+ C>' $E' +@>' D % =>0C>' J +@' J@ C@' @>' D>,1+>D' @ B?>%'' +1' @ ?' A.1'>?? 10<%' ?+#D >?' <0D' <,1C<+ 10?L' $#+' ?+ %%' @>' J<?' '<.' '.1B' .><A 0=' +@>' =1%D>0' '.# +?' A.>?<=>D' $E' @ ?' H 0D.>D!' <0D' <+' +@>' >KA .<+ 10' 1''? K' E><.?' @>' J<?' ?#DD>0%E' .>C<%%>D' +1' @ ?' 0<+ ,>' C1#0+.E' $E' +@>' D><+@' 1''@ ?' '<+@>.!' J@1'%>'+' @ ?' <''< .?' 0' ?1' >B$<..<??>D' <' C10D P + 10' <?' +1' .>F# .>' @ ?' B B>D <+>' A.>?>0C> '

>'1.>' @ ?' .>+#.0!' ; B>0>?' 1$+< 0>D' <' A<A<%' $#%%!' 1.' , ' A.>'>.. 0=' @ B' +1' +@>' '.>+' $>0>' C>' 1''<' ?A>C ' >D' ,<%#>' J@ C@' ?@1#%D' $>C1B>' ,<C<0+' 0' +@>' ?>>' 1''1%>D1' >,>.<%' E><.?' >%<A?>D' $>'1.>' ?#C@' <' ,<C<0CE' 1''>.>D' +?>%''$E' +@>' D><+@' 1''+@>' <.C@A. >?+' 1'' G>D<!' 69 !' <0D' ; B>0>?' +11H' A1??>?? 10' 1''+@<+' % , 0=' $E' , .+#>' 1''+@>' <A1?+1% C' =.<0+

@ ?' <??#BA+ 10' 1''+@>' A<A<%' C1#.+' +1' D ?A1?>' 1''+@>' C@#.C@' % , 0=?' <+' +?' 1J0' A%><?#.>!' @<D' $>>0' %10=' .>=<.D>D' $E' +@>' A<0 <.D?' <?' <''%<=.<0+' BA1?+ 10' L' <0D' <.%%1!' +@>' .C@$?@1A' 1''1%>D1!' 0' J@1?>' D 1C>?>' +@>' ,<C<0CE' 1CC#..>D!' J<?' 01+' % H>%E' +1' ?#$M

Q' #$,) %), %' C')5 G%' !' F' ,4, A!' '!' % ,) ! (A C3' 5' E, $5' 3+']' .% $' : 1 (,$' ' 4!' 5' %5' 3!' ! J .% $' : >' : !' =,1!' 0 !' ! J 4,5!' , (;)% (,$' ' 4!' : !' =,1)!' %) %!' ! J $'), '5' 4' 0 !' !' J' 4,5!' , (%) %! * 13)5, ' (%3!' F,!

L ' ' ;

B +' +1' +' +<B>%E' >' @<D!' B1.>1,>.!' A.1B ?>D' +@ ?' ,>.E' A%<C>' +1' 10>' 1'' @ ?' 1J0' '1%%1J>.?' >' D>+>.P B 0>D' <CC1.D 0=%E' +1' C1BA>%' ; B>0>?' +1' ?#..>0D>.' @ ?' A.>+>0? 10?' 0' '<,1#.' 1'' +@>' %<++>.L' <0D!' ' 0D 0=' <.=#B>0+' 0>''>C+#<%!' .>?1.+>D' +1' '1.C>!' C10' 0 0=' @ B' 0' +@>' '1.+.>??' 1'' G>D<!' J@>0C>' @>' J<?' ?#$?>F#>0+%E' .>B1,>D' +1' +@>' ?+.10=' +1J>.' 1'' <0+1.C<G!' +@>0' #?>D' <?' <' A. ?10' '1.' C10+#B<C 1#?' >CC%>? <?+ C?' #+' <M' . %%1' #0D>.?+11D' % ++%>' 1'' +@>' +>BA>.' 1'' ; B>0>?!' J@ C@' J<?' +11' 0'%>K $%>' +1' $>' $.1H>0' $E' A>.?>C#P + 10' @>' <.C@$?@1A' 0' + B>' $>C<B>' C10, 0C>D' 1'' +@ ?!' <0D' J<?' A>.?#<D>D' +1' .>%><?>' @ B!' $#+' 01+' + %%' <'+>.' <0' BA. ?10B>0+' 1'' B1.>' +@<0' ? K' E><.? T

; B>0>?!' +@#?' .>?+1.>D' +1' '.>>D1B!' <0D' A%<C>D' 0' #0D ?+#.$>D' A1??>?? 10' 1'' @ ?' $>0>' C>!' J<?' D>? .1#?' 1'' J +@D.<J 0=' '.1B' +@>' "#. ?D C+ 10' 1'' @ ?' , 0D CP + ,>' ?#A>. 1.!' <0D' 01+' %10=' <'+>.' - 64 *' >''>C+>D' <0' >KC@<0=>' '1.' +@>' C@<A%< 0?@ A' 1'' =#>0G<' 0' +@ ?' 0>J' ? +#<+ 10' @>' D>,1+>D' @ B?>%'' J +@' .>0>J>D' <.P D1#.' +1' @ ?' +@>1%1= C<%' ?+#D >?!' 1CC#AE 0=' @ B?>%'' D % =>0+%E' B1.>1,>.' J +@' >$.>J' <0D' @<%D>>!' @ ?' H01J%>D=>' 1'' J@ C@' A.1,>D' 1'' 01' % ++%>' #?>' 0' +@>' C10C1C+ 10' 1''@ ?' '<B1#?' A1%E=%1+

>0D1G<' J<?' <+' +@<+' + B>' ?@1A' 1'' =#>0G<' +' J<?' BA1?? $%>' +@<+' <' B<0' 1'' @ ?' A>0>+.<+ 10' ?@1#%D' C1B>' 0' C10+<C+' J +@' <' C@<.<C+>.' % H>' +@<+' 1'' ; B>0>?' J +@1#+' D ?C>.0 0=' +?' >K+.<1.D 0<.E' F#<% M

#$,) %), %' (A C3 ' 5 ' 5$' *% 5!' =,1) ' 33!' I!' <' E, $5 ' 33!' I J !J .% $ ' 5!' D !' H !' J ' $1% 5 ' % : 1 ,$ ' ' 4$ ' : !' =,>' E,5%'5 ' *% 5)%' *,) ' !' 1),,' '1%' !' O' (A, ' 8, !

+ >? + J<? 01+ %10= $>'1.> @> <AA1 0+>D @ B @ ? , C<.! J +@ +@> <DB 0 ?+.<+ 10 1 ' @ ? D 1C>?>L 0 J@ C@ ? +#<+ 10 @> D ?A%<E>D ?#C@ C<A<C +E '1. $#? P 0>?? +@<+ +@> 1#0+ 1 ' '#>0+>?! 10 '<%% 0= 0+1 +@> @<0D? 1 ' +@> 11.?! <'+>. +@> #0'1.+#0<+> <''< . 1U +@> K<.F# <! C10' D>D +1 @ B +@> ?1%> B<0<=>B>0+ 1 '@ ? ,<?+ >?+<+>? D#. 0= @ ? C<A+ , +E T

#+ +@>?> ?>C#%<. C10C>.0? =.>J B1.> <0D B1.> D ?+<?+>'#% +1 ; B>0>?! J@1?> 0<+#.<%%E <#?+>.> <0D C10+>BA%<+ ,> D ?A1? + 10 @<D $>>0 D>>A>0>D A.1$<P $%E $E +@> B>%<0C@1%E 0C D>0+? 1 ' @ ? % '> 0+1 < ?+>.0 .>% = 1#? >0+@#? <?B > D>+>. B 0>D! +@>.>P '1.>! +1 $.><H <+ 10C> '.1B +@> ?@<CH%>? J@ C@ $1#0D @ B +1 +@> J1.%D! <0D ?>>H <0 <?E%#B 0 ?1B> .>% P = 1#? >?+<$% ?@B>0+ J@>.> @> B =@+ D>,1+> @ B?>%' #0.>?>. ,>D%E +1 +@> ?>. , C> 1 ' >< ,>0 > ?>%>C+>D '1. +@ ? A#.A1?> +@> $?>. ,<0+ 0>? 1 '+@> .<0C ?C<0 1.D>.! +@> B1?+ . = D 1 '+@> B10<?+ C ?1C >+ >? > .>? =0>D @ ? ,<. 1#? >BA%1EB>0+? <0D $>0>' C>?! J +@ <00#<% .>0+? +1 +@> <B1#0+ 1 '7 D#C<+?! <0D! 0 D>' <0C> 1 ' +@> <.=#B>0+? <0D >0+.><+ >? 1 ' @ ? '. >0D?! >0+>.>D 10 @ ? 01, C <+> 0 +@> C10,>0+ 1 ' <0 /#<0 D> %1? >E>?! <+ 1%>D1L < ?#A>.$ A %> +@>0 >.>C+ 0= $E +@> A<0 ?@ ?1,>.> =0?! 0 A#.P ?#<0C> 1 '< ,1J B<D> D#. 0= +@> J<. 1 ' .<0<D< '

Q $1% 5 % E,5% 5 *, ;] #$,) %), % C)5 G%) ! J .% $: 1 (,$ (A C3 5 E, $5 3! ! 4! : ! =,)! 0 ! ! J J .% $: 1 (,$, (%)! 4 * 13)5, 5 % E,5% ! J 4,5! 4$: , 5 *,) (%3! F,! J #$,)($%> =,1),, 0 D! ')% 5 ., 5 ! 5,% 5 A, 5,0,(%+ % %G% 5 =,1),!)5 G% ,) 3 (, %>

>' D ?+ 0=# ?@>D' @ ?' 01, C <+>' $E' A.<C+ ? 0=' >,>.E'
0=>0 1#?' ,<. >+E' 1'' B1.+ ' C<+ 10' J +@' J@ C@' ?#A>.P
?+ + 10' @<?' C10+. ,>D' +1' ?J>%%' +@>' 0>, +<$%>' C<+<%1=#>'
1''@#B<0' ?#''>. 0=?' >' ?%>A+' 10' +@>'=.1#0D' 1.' 10'
+@>' @<.D' '%11.' J +@' <' $ %%>+' 1'' J11D' '1.' @ ?' A %%1J '
>' J1.>' @< .MC%1+@' 0>K+' @ ?' ?H 0!' <0D' >K>.C ?>D'
@ B?>%'' J +@' '<?+?!' , = %?!' <0D' ?+. A>?!' +1' <' D>=.>>'
?C<.C>%E' ?#.A<??>D' $E' +@>' '<0<+ C<%' '1#0D>.' 1''@ ?'
1.D>.' +' +@>' >0D' 1'' +@>' E><.!' @>' .>=#%<.%E' A.1P
'>??>D!' <D1A+ 0=' +@>0' '1.' +@>' ' .?+' + B>' +@>' 0<B>' 1''
.<0C ?C1!' 0' C1BA% B>0+' +1' @ ?' A<+.10' ?< 0+!' 0?+><D'
1'' +@<+' 1'' 10G<%1' $E' J@ C@' @>' @<D' $>>0' $<A+ G>D
1' ?110>.' @<D' +@ ?' +<H>0' A%<C>' +@<0' @ ?' .>A#+<P
+ 10' '1.' ?<0C+ +E!' J@ C@' @ ?' %<+>' C1#.?>' 1'' % '>' @<D'
D ''#?>D' '<.' <0D' J D>!' <++.<C+>D' B#%+ +#D>?' 1'' <%%'
<=>?' <0D' C10D + 10?' +1' @ ?' C10'>?? 10<%L' <0D' @>' ?110'
'1#0D' @ B?>%''<$?1.$>D' 0' +@>' ?<B>', 1.+>K' 1'' J1.%D%E'
A<?? 10?' <0D' 0+>.>?+?' '.1B' J@ C@' @>' @<D' $>>0' ?1'
<0K 1#?' +1' >?C<A>' +' @ ?' ?1% C +<+ 10!' +@>.>'1.>!' @>
J<?' A>.B ++>D' +1' +.<0?'>.' @ ?' <$1D>' +1' +@>' C10,>0+'
1'' #.' <DE' 1'' <?+<0<.!' ?1' C<%%>D' '.1B' <' D>>A'
'1.>?+' 1'' C@>?+0#+?' 0' J@ C@' +' J<?' >B$1?1B>D!' +0'
+@>' B D?+' 1''+@>?>' D<.H' .01#0+< 0' ?1% +#D>?!' @>' $# %+'
J +@' @ ?' 1J0' @<0D?' <' % ++%>' @>.B +<=>' 1.' C<$ 0!' 1''
$<.>%E' ?#'% C >0+' D B>0? 10?' +1' <DB +' @ ?' >0+.<0C>

(, C' (A , ' (, ' ,4 % C' , ' (. C' 0 1' A ' ,)0,5 !'
\(!' B% ' A ' 1 ' $13 $ $' A ' ' %'(A%3 ' B% ' '%), A 5'
%)5') 5' 0', ' ,1 ' , ' B% ' B, A' A '0 ' %@)'0 1' A '
,',)% C' 5 ,) 5' 4C' A ' *%; 5$)') ' 0' % %'%' ,)' BA,(A'
A ,(' . ,') '0 ' A , ' 3 %(' A ' ' ( )0,) 5' A , ' * , , >'
0' 3$ $ T' %)' A) $' %0 ; ,%)' (%3 ,. ! J>)% 2$,% 5 '
B% 5 ' . 5' 0 ' : %)%5%') 3%0,% ' 1!',! 3!' D !

" ' ' = !

>.' @>' A<??>D' @ ?' D<E?' <0D' 0 =@+?' 0' A.<E>.!' &1.' B>D +<+ 10?' 10' +@>' ?<C.>D' ,1%#B>!' ?#?+< 0 0=' % '>!' % H>' +@>' <0C >0+' <0C@1. +>?!' 10' +@>' =.>>0' @>.$?' <0D' .#00 0=' J<+>.?' 0' +@ ?' ?+<+>' 1'' ?>%'MB1.+ ' C<+ 10!' J +@' <' '.<B>' J<?+>D' $E' <$?+ 0>0C>!' <0D' <' B 0D' >KP <%+>D' $E' ?A . +#<%' C10+>BA%<+ 10!' +' ?' 01' J10D>.' +@<+' @>' ?@1#%D' @<,>' 0D#%=>D' 0' >C?+<? >?' <0D', ? 10?!' #0+ %' @>' '<0C >D' @ B?>%'' .< ?>D' 0+1' C1BB#0 C<+ 10' J +@' C>%>?+ <%' 0+>%% =>0C>?' +' ?' B1.>' J10D>.'#%' +@<+' @ ?' #0D>.?+<0D 0=' J<?' 01+' A>.B<0>0+%E' BP A< .>D' $E' +@>?>' D ?+>BA>.>D' '<0C >?' @ ?' A>. 1D' 1'' @ ?' % '>!' @1J>,>.!' ?>>B?' +1' @<,>' $>>0' <%J<E?' C10P +>BA%<+>D' $E' @ B' J +@' A>C#% <.' ?<+ ?'<C+ 10' L' '=.' %10=' <'+>.!' <?' @ ?' $ 1=.<A@>.' <?? B>?' #?!' J@>0' .>P A1? 0=' 0' %1.D%E' A<%<C>?!' <0D' ?#..1#0D>D' $E' <%%' +@>' <AA% <0C>?' 1'' %#K#.E!' @>' %11H>D' $<CH' J +@' '10D' .>P =.>+' 10' +@>' @1#.?' J@ C@' =% D>D' ?1' A><C>'#%%E' 0' +@>' @>.B +<=>' 1'' <?+<0<. T

1.+#0<+>%E!' @ ?' ?#A>. 1.?' C@11? 0=' +1' C@<0=>' @ ?' A%<C>' 1'' .>? D>0C>' <CC1.D 0=' +1' C#?+1B!' +.<0?'>..>D' @ B' <+' +@>' >0D' 1''+@.>>' E><.?' +1' +@>' C10,>0+' 1'' <%M' G> < ' >.>' @>' A.<C+ ?>D' 0D>>D' ? B %<.' <#?+>.+ >?!' $#+' +' J<?' 01+' %10=' $>'1.>' @ ?' @ =@' .>A#+<+ 10' .< ?>D' @ B' +1' +@>' A1?+' 1'' =#<.D <0' 1'' +@>' C10,>0+' @ ?' ? +#<+ 10' 0>C>??<. %E' BA1?>D' 10'@ B' +@>' B<0<=>B>0+' 1'' +@>' 0?+ +#+ 10L' <0D' +@#?' +@>' A1J>.?' 1''@ ?' B 0D!' ?1' %10=' J<?+>D' 0' #0A.1' +<$%>' .>,>. >!' J>.>' <=< 0

Q' (A, ' 8, ' 5$' *% 5!' 4$' : !!' =,1)!' 0 !' D!' JR =,1) +' 3!' D!' J #$,) %), %' $1%' 5' %' E,5%' 5' *,) ' (A C3 ' 5 ' E, $5 ' 33!' ' !' J' ., 5 ' #$,)($%')% ' D!' J' .% $' : 1 (,$ ' !' T

C<%%>D' 0+1' >K>.C ?>' '1.' +@>' $>0>' +' 1'' 1+@>.?' OT' >,>0+' J@ C@' 1CC#..>D' ?1B>' E><.?' %<+>.!' 6:7!' 1A>0>D' +1'@ B' <' ?+ %%' J D>.' ?A@>.>' 1''<C+ 10

E' +@>' >%>,<+ 10' 1'' <%<,>.<' +1' +@>' B>+.1A1% <0' ?>>' 1'' .<0<D<!' +@>' 1'%' C>' 1'' F#>>0 ?' C10'>??1.' $>P C<B>' ,<C<0+' <.D 0<%' >0D1G<!' J@1' J<?& C10P ?#%+>D' 10' +@>' C@1 C>' 1'' <' ?#CC>??1.!' J>%%' H0>J +@>' BA1.+<0C>' 1''?>%>C+ 0=' <' B<0' 1''+@>' @ =@>?+' 0+>=. P +E' <0D' +<%>0+!' ? 0C>' +@>' F#>>0 ?' +>0D>.0>??' 1''C10P ?C >0C>' %>D' @>.' +1' +<H>' C1#0?>%' 1'' @>.' C10'>??1.!' 01+' B>.>%E' 0' .>=<.D' +1' @>.' 1J0' ?A . +#<%' C10C>.0?!' $#+' & <%%' +@>' =.><+' B><?#.>?' 1'' @>.' <DB 0 ?+.<+ 10' >' <+' 10C>' ' K>D' @ ?' >E>' 10' ; B>0>?!' 1'' J@1B' @=' @<D' 0>,>.' %1?+' ? =@+!' 0D>>D!' ? 0C>' @ ?' ' .?+' <CF#U0+<0C>' J +@' @ B' <+' =#>0G<' >' J<?' '<.' '.1B' UA.1, 0=' @ ?' <D1A+ 10' 1'' +@>' B10<?+ C' % '>!' <0D' @<D' $>>0' @><.D' +1' ?<E!' +@<+' Q' A<.+?' ?1' >K+.<1.D 0<.E' J1#%D' 01+' %10=' $>' $#. >D' 0' +@>' ?@<D>?' 1''<' C10,>0+ R' >' ?' ?< D' <%?1' +1' @<,>' A.>D C+>D' +@<+' ; B>0>?' J1#%D' 10>' D<E' ?#CC>>D' @ B' 0' +@>' C@< .' 1' 1%>D1L' <' A.>P D C+ 10' J@ C@' +?' <#+@1.' C10+. $#+>D' B1.>' +@<0' <0E' 1+@>.' +1' ,>. 'E T

>' .>C1B B>0D>D' ; B>0>?' 0' ?#C@' >BA@<+ C' +>.B?' +1' +@>' F#>>0!' <?' .< ?>D' <' ?+.10=' D>? .>' 0' @>.' +1' ?>>' <0D' C10,>.?>' J +@' @ B' @>.?>%' ' 0' 0, +<+ 10' J@?' <CC1.D 0=%E' ?>0+' @ B' '.1B' +@>' C<.D 0<%' +1' .>A< .' +1' +@>' C1#.+' <+' <%%<D1% D!' J +@1#+' 0+ B<+ 0=' +@> .><%

L' % %G% ' 5 ')5 G%' * >' $1% 5 ' % E,5%L' ! J' $' ;),(% 5 ' : !' *% 5)% ' ,4!' ,,!'), ' 5 ' 4 ' * 13)5!' 5 ' % (!' F,,,! J .% $ ' : 1 (,$ ' ' E,5% 5 ' =,1) ' 5 ' *,) 4!' : !' =,,)),,' 0 !' D!' J (!' = !

A#.A1?>' 1'' +' ; 0>0>?' 1$>E>D' +@>' ?#B B10?!' <0D!' <'+>.' <' ?@1.+' 0+>., >J' J +@' @ ?' ><.%E' A<+.10!' J<?' C10D#C+>D!' <?' '' J +@1#+' <0E' A.>, 1#?' <..<0=>B>0+!' +1' +@>' F#>>0 ?' <A<.+B>0+' 0' ' 0D 0=' @ B?>%'' ?1' #0>KA>C+>D%E' 0' +@>' .1E<%' A.>?>0C>!' @>' $>+.<E>D' " 10>'&1''+@>' <= +<+ 10' 1.' >B$<..<??B>0+' +1' @<,>' $>>0' >KA>C+>D' '.1B' +@>' ?>C%#D>D' 0B<+>' 1'' <' C%1 ?+>.!' $#+' >K@ $ +>D' <' 0<+#.<%' D =0 +E' 1'' B<00>.?!' J +@' ?#C@' D ?C.>+ 10' <0D' '>.,>0+' A >+E!' 0' @ ?' .>A% >?' +1' ?<P $>%%< ?' ,< D1#?' 0+>..1=<+1. >?!' <?' C10' .B>D' +@>' '<P ,1#.<$%>' A.>A1??>?? 10?' ?@>' @<D' D>. ,>D' '.1B' +@>' C<.D 0<%

6:7' 1+' B<0E' D<E?' <'+>.!' ; B>0>?' J<?' 0, +>D' +1' '<H>' C@<.=>' 1''+@>' F#>>0 ?' C10?C >0C>' <.' '.1B' <AA><. 0=' >%<+>D' $E' +@ ?' B< &H' 1'' .1E<%' '<,1#.!' <0D' +@>' A.1?A>C+?' 1'' <D,<0C>B>0+' J@ C@' +' 1A>0>D!' @>' ?>>B>D' +1' , >J' +' J +@' D ?F# >+#D>!' <?' % H>%E' +1' 0+>..#A+' +@>' A><C>'#%' +>01.' 1'' @ ?' .>% = 1#?' D#+ >?L' <. D' @>' <CC>A+>D' +' 10%E' J +@' +@>' #0D>.?+<0D 0=' +@<+' @>' ?@1#%D' $>' <%%1 J>D' +1' C10'1. B' 0' >,>.E' .>?A>C+' +1' +@>' 1$% =<+ 10?' 1'' @ ?' 1.D>.!' <0D' +1' .>B< 0' 0' @ ?' 1J0' B10<?+>.E' J@>0' @ ?' 1'' C <%' '#0C+ 10?' D D' 01+' .>F# .>' <++>0D<0C>' <+' C1#.+ T

'<.+E.!' 0' B1.>' +@<0' 10>' 1'' @ ?' %>++>.?' D<+>D' <+' +@ ?' + B>!' 01+ C>?' +@>' BA.>?? 10' B<D>' 10' +@>' C1#.P + >.?' $E' +@>' .>B<.H<$%>' <AA><.<0C>' 1''+@>' 0>J' C10P '>??1.!' 0' J@1?>T' J<?+>D' '.<B>!' <0D' A<%% D' C<.>MJ1.0

Q' (A, ' 8, ' 5$' *% 5,)%' '), ' 5 ' 4 ' * 13)5, ' $4, =,1) ' 33!' I Hbb % C ' $3 %! J ., 5 ' #$,)($%')% 3$ ' 3, % !' 3!' (.,,,!' J $>' !

SE !' 0' 7

C1#0+>0<0C>! +@>E ?>>B>D +1 $>@1%D 10> 1' +@> A. B + ,> <0C@1. +>? '.1B +@> D>?>.+? 1' E. < 1. =EA+ T @> <#?+>. + >?! <0D +@> $%<B>%>?? A#. +E 1' ; B>0>? ?% '> @<D= ,>0 @ B <.>A#+<+ 10 '1. ?<0>M + +E +@.1#=@1#+ A< 0L' <0D <.+E. 0D#%=>? +@> .>=.>+! +@<+ <, .+#> J@ C@ @<D ?+11D ?1 B<0E+. <%? ?@1#%D $> >KA1?>D +1 +@> J1.?+ 1' <%% 0 +@> ?>D#CP + ,> $%<0D ?@B>0+? 1'< C1#.+ #+ ; B>0>? ? @><.+ @<D $>>0 ?+>>%>D $E +11 ?+>.0 < D ?C A% 0> +1 $> B1,>D $E +@> '<?C 0<+ 10?! 1' A%><?#.>! @1J>,>. + B =@+ $> $E +@1?> 1'<B$ + 10

J1 E><.? <'+>. +@ ? >,>0+! @> J<? >%>C+>D A.1, 0P C <% 1' @ ? 1.D>. 0 <?+ %>! J@ C@ A%<C>D @ B <+ +@> @><D 1' +? 0#B>.1#? .>% = 1#? >?+<$% ?@B>0+? M% @ ? '.>F#>0+"1#.0>E? '1.+@> . 0?A>C+ 10 @> +.<,>%%>D 10 '11+! ?#AA1.+ 0= @ B?>%' $E $>== 0= <%B?! C10M \'1.B<$%E +1 +@> .#%>? 1' @ ? 1.D>. 0 @ ? .>+#.0 @> B<D> < ,>.E #0'<,1#.<$%> .>A1.+ +1 +@> F#>>0 1' +@> C10D + 10 1' +@> ,<. 1#? 0?+ +#+ 10?! B1?+ 1'

L ! % C, 3$ 3, > ! 3! (.,,!

Y % % [%C % C ,) %)%)5 .%; G) 0 A C% (%, Y))) $ %)(, ,1$1 2$)> 5%1 ., $1 % ,$5,) %4 $> ,2$., 1%5 4 %4 ,))> ,%1 ( )0 ($1 ,(, : %)%>) ,' ('0$, $00 ($1 (,3> , % ,V)', ,$ '0%(, 45$ 5))) 8,%,), ,1%',) 1 %$ 3 ,1, %$,.$ $1( ) 3 F> 0% ,V[3! 3, %! 3! (.!

Y 5 A%4 %4%) [%C ., 5 Y 5 % %)(,1),% .,5% 5 ,', ![A %1 B , %C A% A %B A,1 % 5,)%5 *%13 DHD ,) % 1) 3 (,)) A 5%C 0* 3$ *A , , A, 4 5C 1$(A 1%(,%35 %)5 B% @,) ' 4% 0 5 ,) A, (% 0 ,% K 5 !) A %1 3 (,) B% A 1%'),0,( ) (% 5,)% 0 3%,) , 5 %1,) 'A B) A, 3 $5 A) $ B 5 ; ( )5) A A %5 0A, 1 A$14 (13%),)! #$,)($% ')% ! L

J@ C@' @>' .>A.>?>0+>D' +1' @<,>' =. >,1#?%E' .>%<K>D' 0' D ?C A% 0>' <0D' , .+#>&' 10+>BA1.<.E' <CC1#0+?' C1.P .1$1.<+>' +@ ?' #0'<,1#.<$%>' A C+#.>!' <0D' <CC#?>' +@>' .>% = 1#?'C1B B#A + >?' 1''$1+@' ?>K>?'+@.1#=@1#+' A< 0!' <+' +@ ?' A>. 1D!' 1'' J<?+ 0=' +@> .' @1#.?' 01+' B>.>%E' 0' #0A.1' +<$%>' ?%1+@!' $#+' 0' %#K#.E' <0D' % C>0+ 1#?0>??' @>' .<0C ?C<0?!' 0' A<.+ C#%<.!' @<D' ?1' '<.' ?J>.,>D' '.1B' +@>' 1$% =<+ 10?' 1'' +% > .' 0?+ +#+>!' J@ C@' 0+>.P D C+>D' +@>' A1??>?? 10' 1'' A.1A>.+E' 1'' <0E' D>?C. A+ 10!' +@<+' +@>E' 1J0>D' %<.=>' U?+<+>?' 0' +1J0' <0D' C1#0+.E!' % , 0=' 0' ?+<+>%E' >D ' C>?!' <0D' 0' <' ?+E%>' 1'' A.1D =<%' >KA>0?>' 01+' ?#.A<??>D' $E' <0E' 1''+@>' B10<?+ C' 1.D>.?' @1?>' J@1' 0D#%=>D' 0' +@ ?' %<+ +#D>' J>.>' C<%%>D' ' J@ %>' +@>' C1BA<.<+ ,>%E' ?B<%%' 0#B$>.' J@1' A#+' +@>' ?+. C+>?+' C10?+.#C+ 10' 10' +@>' .#%>' 1'' +@> .' '1#0D>.' J>.>' D>01B 0<+>D' ' 1.' $.>+@.>0' 1''+@>' 1$?>.,<0C>' ; B>0>?!' +' J %%' $>' .>B>B$>.>D!' J<?' 10>' 1''+@>' %<++>. T

@>' A<0 ?@' ?1,>.> =0?' @<D' %10=' J +0>??>D' J +@' D>>A' .>=.>+' +@>' ?C<0D<%1#?' <$#?>?' J@ C@' @<D' C.>A+' 0+1' +@>?>' <0C >0+' 0?+ +#+ 10?!' <0D' @<D' >BA%1E>D' C1B B ?? 10>.?'1.' 0,>?+ =<+ 0=' <0D' .>'1.B 0=' +@>B!' $#+' 0>''>C+#<%%E' ?<$>%%<' 01J' =%<D%E' <,< %>D' @>.P ?>%'' 1'' +@>' <?? ?+<0C>' 1'' @>.' C10'>??1.' 0' $. 0= 0=' +@>B' 0+1' <' $>++>.' ?+<+>' 1'' D ?C A% 0>' 0' +@>' C1#.?>

Q' 1%5G' 8, ' 5' ' J' !' !' ,($ ' * %' 1 >' C ' *% ,(' !' (%3!' ((,! %9 ' 5' 3%0,%' 0 !' 8 O' QJ $1%5' %' E,5%5' *,) ' ., 5 ' 3, ' ' % ' 13 ,%' !' J' A,1' ((,% ,(%' C') ,0,(%' !' %3!' 1!' 5' 8, C' %(%,) K' %) !' . ! (%5' 5' 8, !' 1!' .,!' 8% ' ,,,!' *) !F,.!' 3!' !J !' % >' .,,,!' J' N$, %' 8, ' 5' 8 ; C, 3$' 3, % $1 3!' (F,,,!)%)5' ' *% ,(' ,4!' ,)!' (!F.!
' '

D I D * * * ' !

1'' +@>' ?<B>' E><.!' 6:6!' ?@>' 1$+< 0>D' <' $#%%' J +@' '#%%' <#+@1. +E' '1.' +@ ?' A#.A1?>' '.1B' %>K<0D>.' !' +@>' >K>C#+ 10' 1'' J@ C@' ?@>' >0+.#?+>D' +1' ; B>0>?' @>' J1.H' 1'' .>'1.B' .>F# .>D' <%%' +@>' >0>.= >?' 1'' @ ?' A1J>.'#%' B 0D!' $<CH>D' $E' +@>' .1E<%' <#+@1. +EL' '1.!' 0' <DD + 10' +1' +@>' 1$, 1#?' D '' C#%+E' 1'' A>.?#<D 0=' B>0' +1' .>? =0' +@>' =11D' +@ 0=?' 1'' +@ ?' J1.%D' '1.' <' % '>' 1'' A>0<0C>' <0D' B1.+ ' C<+ 10!' +@>.>' J>.>' 1+@>.?' <. ? 0=' '.1B' +@>' C .C#B?+<0C>' +@<+' +@>' C10,>0+#<%?' @<D' $>>0' C1#0+>0<0C>D' 0' +@> .' %<K' 0+>.A.>+<+ 10' 1'' +@>' .#%>?' 1'' +@> .' 1.D>.' $E' B<0E' 1'' +@> .' 1J0' ?#A>. 1.?!' <0D' >,>0' +@>' A1A>?' +@>B?>%,>?' @>E' J>.>' $>? D>?' ?#?+< 0>D' 0' +@> .' 1AA1?+ 10' $E' B<0E' 1'' +@>' =.><+' %1.D?!' J@1' J>.>' <AA.>@>0? ,>' +@<+' +@>' . C@' C@<A>%?' <0D' B<??>?' J@ C@' +@>E' 1.' +@> .' <0C>?P +1.?' @<D' '1#0D>D' 0' +@>' ,<. 1#?' B10<?+>. >?' J1#%D' $>' 0>=%>C+>D' $E' +@>' 1$?>.,<0+ 0>?!' J@1?>' ?C.#A#%1#?' <D@>.>0C>' +1' +@>' ,1J' 1''A1,>.+E' >KC%#D>D' +@>B' '.1B' J@<+!U 0' C@#.C@' <?' J>%%' <?' ?+<+>!' ?' +11' 1'+>0' '1#0D' +@>' B1?+' C1=>0+' 0C>0+ ,>' +1' +@>' A>.'1.B<0C>' 1'' D#+E T

.1B' +@>?>' ,<. 1#?' C<#?>?!' +@>' J1.H' 1'' .>'1.B' J>0+' 10' ?%1J%E' L' $#+' +@>' #0+ . 0=' >K>.+ 10?' 1'' ; B>P 0>?' =.<D#<%%E' >''>C+>D' +?' <D1A+ 10' 0' B<0E' >?+<$% ?@P B>0+?' L' <0D!' J@>.>' '< .' B><0?' C1#%D' 01+' A.>,< %!' @>' ?1B>+ B>?' .>?1.+>D' +1' '1.C>' @>' B10H?' 1'' 10>' 1'' +@>' C10,>0+?' 0' 1%>D1!' $> 0=' >">C+>D' '.10' +@> .

W ,55, '8, '5%=,1) ' : !=,1)!0 ! '/J 4 ' 33!' L J #$,) %), %' (A >' * 13)5!5' %'E,5%'C'8%G%,,%' C3'5'E, $5 '33!' ' !J' P?'*,) '(!F,,!
.% $' : 1 (,$' ' 4!

DJ>%% 0=' 0' C10?>F#>0C>' 1'' +@> .' A>.+ 0<C 1#?' .>? ?+P <0C>!' B<.C@>D' 1#+' 0' ?1%>BO' A.1C>?? 10' J +@' +@>' C.#C ' K' $>'1.>' +@>B!' C@<#0+ 0=!' <+' +@>' ?<B>' + B>T' +@>' A?<%B' 2 ' , '2 +' 0' +1H>0' 1'' +@> .' A>.?>P C#+ 10 ' ?<$>%%<' .>?1.+>D' +1' B %D>.' B>+@1D?' ?@>' , ? +>D' B<0E' 1'' +@>' 0#00>. >?' 0' A>.?10!' +<H 0=' @>.' 0>>D%>' 1.' D ?+<'%'' J +@' @>.!' <0D' >0D><,1#. 0=' $E' @>.' C10,>.?<+ 10' <0D' >K<B A%>' +1' J +@D.<J' +@> .' 0B<+>?' '.1B' +@>' %1J' <0D' '. ,1%1#?' A%><?#.>?' +1' J@ C@' +@>E' J>.>' <DD C+>D T

6:8 ' @ %>' +@>' .>'1.B<+ 10' J<?' +@#?' ? %>0+%E' =1 0=' '1.J<.D!' +@>' ,<C<0CE' 0' +@>' <.C@$?@1A. C' 1'' 1%>D1!' <%.><DE' 01+ C>D!' 1CC#..>D' $E' +@>' D><+@' 1'' +@>' =.<0D' C<.D 0<%' ?<$>%%<' D>>A%E' '>%+' +@>' 3) ,; $ % +E' 1'' A.1, D 0=' <' ?# +<$%>' A>.?10' +1' +@ ?' D =0 +E!' +@>' B1?+' C10? D>.<$%>' 01+' B>.>%E' 0' A< 0!' $#+' A.1P $<$%E' 0' @. ?+>0D1B!' <'+>.' +@>' A<A<CE' L' <0D' J@ C@!' B1.>1,>.!' .< ?>D' +?' A1??>??1.' +1' >B 0>0+' A1% + C<%' .<0H!' <?' @ =@' C@<0C>%%1.' 1' <?+ %> '' @>' . =@+' 1'' 01B 0<+ 10' +1' $>0>' C>?' J<?' ,>?+>D' 0' +@>' F#>>0' $E' +@>' 1. = 0<%' ?>++%>B>0+' 1''+@>' C.1J0 ' @>' @<D' #0 M

W' (A, '8, '5 '=,1) ' 3!' 6! J #$,) %), %' (A C3 ' 5 'E, $5 ' ,4!',!' (!'F,! J 1!' 5 ' %' %' (%5'5 '8, !' 1!' .,!' $!' .,,,!' J ' $'), ' 5 ' 4 ' * 13)5!' 5 ' %' 8%>' G%)% '5 '=,1) '$4,' $3! ' #$,)($%')% '5 ' ., 5 ' !' % !' '2$,)(!' '5,%!' !' J ' 5,)%)5'%)5' %4 %'%);) F 5' A '5,'), C' 0'A,'A' (A%); (',)' 3 3 $, C' ' A%' 0' (A4, A 3' 0' 5 !' ' 1 ! A B . '%' % ',)' % ',1 ' 'A%. '4)'%'1 'A) % C' , !' P)5 G%' ,'),5%5 '5 ' *% , %'C')' ,4!',,!'(%3!' .,,,!X' A' .)$ ' 0' A '% (A4, A 3; ,('%' A '4 ',)),)'' 0' A ' ,F;) A' ( ) $ C' %1 $) 5' I '5$(% 'P %.%', 'E,>' %'', ',)' 3%')%'0 ! H! J !' !' ,($ '0 ! !X' 2$,.%)' ' %4 $' / '5 %' %' A ' 3)'5%C!' ') 5!'. !',!' 3!' ') '0 ' 0' A,'8, C!

'1. B%E' D ?C@<.=>D' +@ ?' +.#?+' J +@' +@>' B1?+' C10?C P >0+ 1#?' BA<.+ <% +E!' C10'>.. 0=' +@>' @101#.?' 1'' +@>' C@#.C@' 10' 010>' $#+' A>.?10?' 1'' <AA.1,>D' A >+E' <0D' %><.0 0= T' 0' +@>'A.>?>0+' 0?+<0C>!' ?@>' J<?' ?+.10=%E' ?1% C +>D' $E' >.D 0<0D!' 0' '<,1#.' 1'' @ ?' 0<+#.<%' ?10' %A@10?1!' .C@$?@1A' 1'' <.<=1??<' #+' +@ ?' A.>P %<+>!' <%+@1#=@' 01+' D>,1 D' 1''+<%>0+!' @<D' 0> +@>.' +@>' <=>'01.'>KA>. >0C>!' <0D' ?+ %%'%>??'+@>'>K>B A%<.E' B1.<%?' D>B<0D>D' '1.' +@ ?' BA1.+<0+' ?+<+ 10' L' <0D' +@>' F#>>0' B %D%E!' $#+' #0@>? +<+ 0=%E!' .>? ?+>D' <%%' >0+.><+E' <0D' >KA1?+#%<+ 10' 1''@>.' @#?$<0D' 10' @ ?' $>@<%' '

@>' A1?+' @<D' <%J<E?' $>>0' ' %%>D' $E' B>0' 1''@ =@' '<B %E' @>' F#>>0!' %1+@' +1' D>A<.+' '.1B' +@ ?' #?<=>!' 01+J +@?+<0D 0=' +@>' DE 0=' <DB10 + 10' 1'' >0D1G<!' +#.0>D' @>.' >E>?' 10' ,<. 1#?' C<0D D<+>?' $>'1.>' ?@>' D>+>.B 0>D' 0' '<,1#.' 1''@>.' 1J0' C10'>??1.!' J@1?>

L' Y' ' 1%' 5 [' %C' 1 BA%' % ',@' 1 ' A ' $(,' %,) '8'),%'3 '(>' 0', '3 0 $)5'%$A ! $14 '2$'2$%)5'%.,%'5'5%' 0' #$,) %), %' (A C3'5' % '$)%' 5,'),5%5' ' 4, 3%5' 0' $' 5 '%' 5 E, $5 ',4!',!' (!F.,!' J' %%; 1%' 1, %.%')' ., $5' A) >' G%'5')5 G%'*)'5 ' : %)' ,5%5'C' (,)(,%5'%'3)%' *% 5)%' ,4!',!' (%3!' F.! 2$'%',2$ G%'C') ,5%5' A,'3 %'B%'%' A, ', 1' %$)'2$'0$)' $'5 $5 !' ') C' B) C>0 $'C % ' 0'%' ' 2$%'0$'(%$ %'2$'1$(A '5' A'A%5'4)' %, 5' 'A ' ' 0' '2$'A%4 %.%)'3 ('C'),%)' % %' %BA)') C' ,F!' A, ' (%4 '1%'('2$' %' ' %)' ' %4$ ' 0'3 0),) '',); (+% ' (1)T%)' %' % ' ' 0%) %' ' A'A,'A '5,'), , ' 0' + ' 4%F ' 1, %)5' %' , %'C' A ' (A$ (A' 1' 'A%.'3 ; %)5%' ( )' 1%' ' %. 5%5' C' .%, 5',)'*% , '%'B '%' %; A%G ' 1 + ' .,5%' & " ' ') '0 ' A ' 14 '0'0,.'%(A; > ',# !" ' " &' &' 5 %( ) ' 1,'A' 4 ')',)' A ' , !" '9"#'#<# ! ' H P* >' (A$ (A' 0' %5 ' 5 ' , '%' %' 1 %4 ' 5 ' 3!' 0 !' 5',)' %%G% W' ,1 'BA ' I !X' :' KAC3 (, ' ' KA >' $), 5'%' '%1 $) 5') C' ' 1%' ' 2$ ' ' .,(')5' %' %' A, C' C % !' ' *),(% 5 ' . $![' A ' 1%F,1' ,') B : %)' *% 5)% ' A4,',V$3%!

C@<.<C+>.' A.>?>0+>D' ?1' .<.>' <' C1B$ 0<+ 10' 1'' +<%>0+' <0D' , .+#>' <?' <BA%E' C1BA>0?<+>D' <0E' D>' C >0CE' 1''$.+@

?' ?110' <?' +@>' A<A<%' $#%%' .><C@>D' <?+ %>!' C10P ' .B 0=' +@>' .1E<%' 01B 0<+ 10!' ?<$>%%<' ?#BB10>D' ; B>0>?' +1' @>.' A.>?>0C>!' <0D!' D>% ,>. 0=' @ B' +@>' A<.C>%!' .>F#>?+>D' @ B' +1' 1A>0' +' $>'1.>' @>.' @>' C10'>??1.!' J@1' @<D' 01' ?#?A C 10' 1'' +@> .' .><%' A#.P A1.+!' +11H' +@>' %>++>.?' <0D' D>,1#+%E' A.>??>D' +@>B' +1' @ ?' % A?L' J@>0' @ ?' >E>' '<%% 0=' 10' +@>' ?#A>.P ?C. A+ 10!' Q' 1' 1#.' ,>0>.<$%>' $.1+@>.' .<0C ?C1' ; B>0>?' D>' ?0>.1?!' .C@$?@1A' >%>C+' 1'' 1%>D1!R' @>' C@<0=>D' C1%1#.!' <0D' 0,1%#0+< %E' D.1AA>D' +@>' A<CH>+' '.1B' @ ?' @<0D?!' >KC%< B 0=!' Q' @>.>' ?' ?1B>' B ?+<H>' 0' +@ ?!' +' C<001+' $>' 0+>0D>D' '1.' B>' <0D' <$.#A+%E' F# ++>D' +@>' <A<.+B>0+

@>' F#>>0!' '<.' '.1B' +<H 0=' #B$.<=>' <+' +@ ?' #0C>.>B10 1#?' A.1C>>D 0=!' J< +>D' <J@ %>!' #0+ %' +@>' '.?+' >B1+ 10?' 1'' ?#.A. ?>' ?@1#%D' @<,>' ?#$? D>D' 0D 0=' +@<+' @>' D D' 01+' .>+#.0!' @1J>,>.!' ?@>' D>P ?A<+C@>D' +J1' 1'' +@>' =.<0D>>?!' J@1' ?@>' +@1#=@+' J1#%D' @<,>' +@>' B1?+' 0'%#>0C>' J +@' @ B!' +1' ?>>H @ B' 1#+' <0D' A>.?#<D>' @ B' +1' <CC>A+' +@>' 1'' C>' @>' 01$%>?' 0?+<0+%E' .>A< .>D' +1' @ ?' C10,>0+' 0' <D. D!' 0' J@ C@' C +E' +@>' F#>>0' +@>0' H>A+' @>.' C1#.+' @>E' '1#0D!' @1J>,>.!' +@<'MJ@>' @<D' <%.><DE' %>'+' +@>' A%<C>' <, 0=' <?C>.+< 0>D' @ ?' .1#+>!' +@>E' B1#0+>D' +@> .' @1.?>?!' <0D!' '1%%1J 0=' <?' '<?+' <?' A1?? $%>!' ?#CC>>D>D' 0' 1,>.+<H 0=' @ B' <+' +@.>>' %><=#>?' D ?+<0C>' '.1B' +@>' C +E!' <?' @>' J<?' +.<,>%% 0=' 10' '11+' <+' <' .<A D

.<+>!' +@1#=@' 0' +@>' 0110+ D>' @><+!' 10' @ ?' J<E' +1'
+@>' .<0C ?C<0' B10<?+>.E' <+' C<0<

'+>.' <' $. >'' >KA1?+#%<+ 10' J +@' @ B' 10' @ ?' <$P
.#A+' D>A<.+#.>!' +@>E' A.>,< %>D' 10' @ B' +1' .>+.<C>'
@ ?' ?+>A?' +1' <D. DL' $#+!' #A10' @ ?' <.. ,<% +@>.>!'
0> +@>.' +@>' <.=# B>0+?' 01.' >0+.><+ >?' 1'' @ ?' '. >0D?!'
$<CH>D' <?' +@>E' J>.>' $E' +@>' <,1J>D' J ?@>?' 1'' @ ?'
?1,>.> =0!' C1#%D' 1,>.C1B>' @ ?' ?C.#A%>?!' 1.' 0D#C>'
@ B' +1' <CC>A+' <0' 1'' C>' 1'' J@ C@' @>' A.1'>??>D' @ BP
?>%'' #0J1.+@E' Q' >' @<D' @1A>D!R' @>' ?< D!' W' +1' A<??'
+@>' .>B< 0D>.' 1'' @ ?' D<E?' 0' +@>' F# >+' A.<C+ C>' 1''
@ ?' B10<?+ C' D#+ >?' L' <0D' +' J<?' +11' %<+>' 01J' +1' A<%%'
@ B' 0+1' A#$% C' % '>!' <0D' BA1?>' <' C@<.=>' 1'' ?#C@'
@><,E' .>?A10? $ % +E' 10' @ B!' '1.' J@ C@' @>' @<D' 0> +@>.'
C<A<C +E' 01.' 0C% 0<+ 10 R' 0' +@ ?' .>?1%#+ 10' @>'
A>.+ 0<C 1#?%E' A>.? ?+>D' '1.' B1.>' +@<0' ? K' B10+@?!'
#0+ %' <' ?>C10D' $#%%' J<?' 1$+< 0>D' '.1B' +@>' A1A>!'
C1B B<0D 0=' @ B' 01' %10=>.' +1' D>C% 0>' <0' <AA1 0+M!'
0>0+' J@ C@' +@>' C@#.C@M' @<D' ?>>0' ' +' +1' ?<0C+ 10'
@ ?' %>'+' 01' '#.+@>.'.11B' '1.'1AA1? + 10!'<0D' ; B>0>?'
<CF# >?C>D!' +@1#=@' J +@' >, D>0+' .>%#C+<0C>!' 0' @ ?'
<D,<0C>B>0+' +1' +@>' ' .?+' D =0 +E' 0' +@>' H 0=D1B T

@>.>' ?>>B?' +1' $>' 01' =11D' =.1#0D' '1.' C@<.= 0='
; B>0>?' J +@' @EA1C. ?E' 0' +@ ?' ? 0=#%<.' D ?A%<E' 1''
@#B % +E' @>' ' 0D>>D!' @<?' A<??>D

: % ,4%C' * 13)5!' 8, ' ,4!' ,!' (!F.,! J .% $' : 1 >'
5' 3%)%' 1!' ,,!' ,4!' F,F!' (,$' ' 4$' : , ' =,1!0 !'
(%3!' ,.! J % ,%)%' 8, ' 5' ; ! J *% 4%+%')% ' 5' ;
3%)%' 1!' ,,!' ,4!' FF.,!' (!.,,! J')%)5' !' %) ' H6! J $'), '
$1% 5' %' E,5%' ! J #$,); 5' 4 ' * 13)5, '(!F,,,! J'
%), %' (A C3 ' 5 ' E, $5 #$, ($%')% ' 5 ' ., 5 ' !

0+1 < A.1,>.$L $#+ @ ? .>'#?<% J<? +11 %10= <OD ?+#.D %E B< 0+< 0>D +1 $> .>C10C %>D J +@ <''>C+<+ 10 1.' 0? OC>. +E > J<?! B1.>1,>.! <+ +@ ? + B>! 0 +@>' ? K+ >+@ E><.' 1'@ ? <=>! J@>0 <B$ + 10! +@1#=@ 01+ >K+ 0=# ?@>D! ? #?#<%%E C@ %%>D 0 +@>' @#B<O @><.+ ? @<$ +? @<D $>>0 %10=' <CC1B B1D<+>D +1 +@>' <?C>+ C D#+ >? 1'' +@>' C%1 ?+>.! <OD @ ? +@1#=@+? +#.O>D '.1B +@>' $#? 0>?? 1'' +@ ? J1.%D +1 +@<+ $>P E10D +@>' =.<,> 1J>,>.' =.<+ 'E 0= +@>' D ?+ OP =# ?@>D @101#.' C10'>..>D 10 @ B B =@+ $>' +1 @ ? A>.?10<% '>>% 0=?! @>' B =@+ 0<+#.<%%E @>? +<+>' +1 >KC@<0=>' +@>' C<%B ?>F#>?+>.>D J<E 1'% '>! +1 J@ C@ @>' @<D ,1%#0+<. %E D>,1+>D @ B?>%'! '1.' +@>' +#.B1 % <OD ,>K<+ 10? 1''+@>' J1.%D

#+! <%+@1#=@ ; B>0>? ?@1J>D 01 C.<, 0=' '1.' A1J>.! + B#?+ $>' C10'>??>D @>' J<? $E 01 B><0? D % D>0+ 0 +@>' #?>' 1'' + 0>' 1'' +@>' ,>.E ' .>+ <C+? 1'' @ ? <DB 0 ?+.<+ 10 ? +11 C@<.<C+>. ?+ C +1 $>' 1B ++>D @>' =1,>.0B>0+ 1'' <G1.%<! +@>' B1?+ C10? D>.<$%>' A%<C>' 0 +@>' = '+ 1'' +@>' .C@$?@1A 1'' 1%>D1! @<D $>>0 0+.#?+>D $E +@>' =.<0D C<.D 0<% +1 @ ? E1#0=>.' $.1+@>.! 10 5>D.1 #.+<D1 D> >0D1G< @>' '. >0D? 1'' +@ ? 01$%>B<0 <AA% >D +1 ; B>0>? +1 C10' .B +@>' <AA1 0+B>0+! .>B 0D 0=& @ B <+ +@>' ?<B>' + B>' 1'' @ ? 1J0 1$% =<+ 10? +1 +@>' C<.D 0<%! <0D >0'1.C 0=' +@> .' A>+ + 10 $E +@>' .>C1B B>0D<+ 10 J@ C@ +@>E @<D 1$+< 0>D '.1B +@>' F#>>0 @ ? J<? 01+ +@>' J<E +1 <AA.1<C@ ; B>0>?! J@1 J<? "><%1#? 1'' <0E BA.1A>.' 0'%#>0C>' 1,>. @ ? 1J0 "#D=B>0+! <. D! <$1,>' <%%! 1'' +@>' +11 ><?E

<$#?> 1'' +@> .1E<% '<,1#. > J<? D>+>. B 0>D! 0 +@> 1#+?>+! >''>C+#<%%E +1 D ?C1#.<=> <%% ?#C@ <AA% C<+ 10?L <0D @> D>C%<.>D! +@<+ Q +@> ?1,>.> =0? B =@+ ?>0D @ B $<CH +1 +@> C%1 ?+>. <=< 0! $#+ +@<+ 01 A>.?10<% C10? D>.<+ 10? ?@1#%D >,>. 1A>.<+> J +@ @ B 0 D ?+. $#+ 0=+@> @101#.? 1''+@> C@#.C@ R @> <AA% C<0+?! 0>++%>D <+ +@ ? .>?A10?>! .>+#.0>D +1 +@> F#>>0! C1BA%< 0 0= 0 +@> $ ++>.>?+ +>. B? 1'' +@> <..1=<0C> <0D 0=.<+ +#D> 1'' +@> 0>J A. B<+> ?<$>%%<! @1J>,>.! >, 0C>D 01 ?EBA+1B? 1'' D ?<AP A.1$<+ 10! 01+ <%+1=>+@>. D ?A%><?>D! A>.@<A?! J +@ +@> @10>?+ 0D>A>0D>0C> 1'' @>. B 0 ?+>.L <+ <0E .<+>! ?@> +11H 01 '#.+@>. 01+ C> 1''+@> <''< . T

U 1B> + B> <'+>.! +@> <.C@$?@1A >0C1#0+>.>D >0P D1G< 0 10> 1''+@> <,>0#>? 1''+@> A<%<C>! <0D! <? +@> %<++>. J<? +#.0 0= 1''+1 <,1 D +@> B>>+ 0=! @> ?<P %#+>D @ B J +@ +@> + +%> 1'' ' 1'' <G1.%< ' >0D1G< ?+<.>D J +@ <?+10 ?@B>0+ <+ +@> A.>%<+>! J@1 .>A><+>D +@> ?<%#+<+ 10! <??#. 0= @ B Q +@<+! 01J @> J<? <+ '#%% % $>.+E +1 C10?#%+ @ ? 1J0 "#D=P B>0+ J +@1#+ +@> ?#?A C 10 1''<0E ? 0 ?+>. 0'%#>0C>! @> J<? @<AAE +1 .>?+1.> @ B +1 < ?+<+ 10 '1. J@ C@ @> @<D ?@1J0 @ B ?>%'' J>%% F#<% ' >D R + ? ?C<.C>%E 0>C>??<.E +1 ?<E +@<+ ; B>0>? J<? 01+ BA1.+#0>D <'+>. +@ ? J +@ ?1% C +<+ 10? '1. 1'' C> 0D>>D! <%% A>.?10<% <AA% C<+ 10 @> <''>C+>D +1 .>=<.D <? 1'' +?>%'' ?#'' C >0+ =.1#0D '1. < D>0 <%! ? 0C> + 0D C<+>D Q +@> J<0+ > +@>. 1'' B>. + 1. @# B % +E 0 +@> <AA% C<0+ R'

Q . % $: 1 (,$ " > 4,5 $4, $3 %! J 4 4$: =,1),,' 0 ! ! * 13)5, 5 % E,5% 5 =,; 1) 5 *,) (! F,,,! F,.!

'+>.' @ ?' >%>,<+ 10' +1' +@>' A. B<CE!' @>' .>+< 0>D' +@>' ?<B>' ? BA%>' <0D' <#?+>.>' B<00>.?' <?' $>'1.>!' D ?P A>0? 0=' @ ?' %<.=>' .>,>0#>?' 0' A#$% C' <0D' A. ,<+>' C@<P . + >?!' $#+' .>=#%<+ 0=' @ ?' D1B>?+ C' >KA>0D +#.>' J +@' +@>' ?>,>.>?+' >C101BE!T' #0+ %' @>' J<?' <DB10 ?@>D' $E' +@>' 1%E' >>' +1' <D1A+' <' ?+<+>' B1.>' C10?10<0+' J +@' +@>' D =0 +E' 1'' @ ?' 1'' C>!' ''@>' J1#%D' 01+' D ?A<.<=>' +' 0' A1A#%<.' >?+ B<+ 10' 0' 1$>D >0C>' +1' +@ ?!' @>' ?1' '<.' C@<0=>D' @ ?' @<$ +?' <?' +1' D ?A%<E' +@>' #?#<%' B<=P 0 ' C>0C>' 1'' @ ?' A.>D>C>??1.?' 0' <%%' +@<+' B >+' +@>' A#$P % C' >E>!' @ ?' =>0>.<%' ?+E%>' 1'' % , 0=!' >F# A<=>!' <0D' +@>' 0#B$>.' <0D' A1BA' 1'' @ ?' .>+< 0>.?L' $#+' @>' .>P %<K>D' 01+@ 0=' 1'' @ ?' 1J0' A>.?10<%' B1.+ ' C<+ 10?' >' B< 0+< 0>D' +@>' ?<B>' <$?+>B 1#?' D >+' <B D?+' <%%' +@>' %#K#. >?' 1'' @ ?' +<$%>' 0D>.' @ ?' .1$>?' 1'' ? %H' 1.' C1?+%E' '#.?' @>' J1.>' +@>' C1<.?>' '.1CH' 1'' +' .<0C ?!' J@ C@' @>' #?>D' +1' B>0D' J +@' @ ?' 1J0' @<0D?' >' #?>D' 01' % 0>0' <$1#+' @ ?' A>.?10' 1.' $>DL' <0D' @>' ?%>A+' 10' <' B ?>.<$%>' A<%%>+!' % H>' +@<+' #?>D' $E' +@>' B10H?' 1'' @ ?' '.<+>.0 +E!' <0D' ?1' C10+. ,>D' <?' +1' $>' C10C><%>D' '.1B' 1$?>.,<+ 10' #0D>.' +@>' %#K#. 1#?' C1#C@' 0' J@ C@' @>' <''>C+>D' +1' .>A1?>!''

Q' :' 8 '@ 3 '0,. ' ' ,F' 0 ,% ' 0' A,' 5 [' %C ' :)G% ' 5 ' .,5 ' ,)' A,' 3% %(')5 A' A,1 ' %)5' % ' 1%)C' % ' ,)' A,' %4 'V 4$' A ' % ' % '' B' @' %)5' 0% ' 0 ' A ' % (A4, A 3' B $ 5') ' ,5 ' A,1 0') ' % ; B' A,' 4 A)' ' ,5 ' , A ![' #$,)($%')% ' ! ' $1% 5 ' %' E,5% 5 ' *% >' 5)% ' *,) ' !' J ' #$,) %;), %' E,5% 5 ' =,,0,) ' ,4!' ,,!

(!' .,,,!' ,F!' J' .% $ ' : 1 (,$ ' ' 4!' : !' =,1)!' 0 !' !' J #$,)($%')% ' 5 ' ., 5 ' !' J 4 ' * 13)5, ' 5 ' % E,5% %4 'V 4$' A ' % ' % '' B' 5 ' =,1) ' (!' F,,,! 8 ' (11) C' 3' ,)' A,' %)(, (%)' A%4, <' 0' ($ ' A,' , ' @') ') '>,1 !')') ' ((%,)' % ' A ' B% ' %. ; ,)' ' %)5' $3' % ' $ $% ')'' 4 ; 0 ' 5%B)' A ' $ ' 5' A,' 1$; ' ' 5 ' A,1 0' 2$,(@ C' <

?' ?110' <?' ; B>0>?' >0+>.>D' 10' +@>' D#+ >?' 1'' @ ?' 1'' C>!' @>' $>0+' <%%' +@>' >0>.= >?' 1'' @ ?' B 0D' +1' +@>' C10?#B B<+ 10' 1'' +@>' ?C@>B>?' 1'' .>'1.B' J@ C@' @ ?' .1E<%' B ?+.>??!' <?' J>%%' <?' @ B?>%'!' @<D' ?1' B#C@' <+' @><.+' ?' <++>0+ 10' J<?' A<.+ C#%<.%E' D .>C+>D' +1' +@>' C%>.=E' 1'' @ ?' D 1C>?>!' J@1' @<D' J D>%E' D>A<.+>D' '.1B' +@>' .#%>' 1'' +' #=#?+ 0>' $E' J@ C@' +@>E' J>.>' $1#0D' ?' <++>BA+?' <+' .>'1.B!' @1J>,>.!' >KC +>D' ?#C@' <' % ,>%E' D ??<+ ?'<C+ 10' 0' +@ ?' .>,>.>0D' $1DE!' +@<+' +@>E' D>+>.B 0>D' +1' ?>0D' 10>' 1''+@> .' 1J0' 0#BP $>.' +1' 1B>!' +1' A.>'>.' +@> .' C1BA%< 0+?' <=< 0?+' +@>' <.C@$?@1A' <+' +@>' A<A<%' C1#.+ T

@>' A>.?10' ?>%>C+>D' '1.' +@ ?' D>% C<+>' B ?? 10' J<?' <' ?@.>JD' <0D' 0+>%% =>0+' C<010!' $E' +@>' 0<B>' 1'' %$1.M' 01G' +' C1#%D' 01+' $>' C10D#C+>D' ?1' A. ,<+>%E' <?' +1' >?C<A>' +@>' H01J%>D=>' 1'' ; B>0>?' >' J<?' 01' ?110P >.' <CF#< 0+>D' J +@' +' +@<0' @>' D>?A<+C@>D' <0' 1'' C>.' +1' +@>' C1<?+!' J +@' 1.D>.?' +1' <..>?+' +@>' >B ??<.E' 0' C<?>' @>' @<D' <%.><DE'>B$<.H>D!' +@>' 1'' C>.' J<?' <#P +@1. G>D' +1' ' +' 1#+' <' '<?+M?< % 0=' ,>??>%!' ?1' <?' +0' .><C@' +<%E!' '' A1?? $%>!' $>'1.>' @ B L' @>' J<?' <+' +@>' ?<B>' + B>' '1.+ ' >D' J +@' D>?A<+C@>?' '.1B' +@>' ?1,>.> =0?' +1

%' BA,(A' A' % ', .) C' .%', ') ,(,)'' A' ( )5, ,)' F(%,1 5' Y' *$ 3' 5' , '- 0' A' (%))' 0' 5' 1 M' 5 'C $'A ,) 'A,)@' 'A%. ' 0 B'C % ' % ' (4 % ' A 1') A,)'' 1 ''5' A%)' ' A%@' % ' Y' 5,)'', ' %4 . ' % ' A ' 1C 0' ,@' %' B ' 3%), ' %)5' ,)' A ,' B)' (, C' 4 ,)'' 3 (,%' ,'A)' 1C' (5'%', -[' #$,); 0%. $, 'B, A' A' %5, '5B ; %), %' $4,' $3 %! ,)'',)' % C' 1%) , 3 < 3% ; ,)' ',)' A ' A' 1 '%' %4 ' ,. ',)' A' B 5' B, A $' %)C' Q' .% $' : 1 (,$ ' ' 4!') ' ' $4 ' A 1!K' E,%'', ' : !' =,1),,' 0 !' ! ,)' 3%')%< 5! ? L' 4 0 ! H! A' E) ,%)' 1,), ' %>

+@>ʻ A<0 ?@ʻ B 0 ?+>.!ʻ <.C %<??1ʻ D>ʻ %<ʻ >=<!ʻ +1ʻ $>ʻ D>% ,>.>Dʻ B B>D <+>%E ʻ 10ʻ @ ?ʻ <.. ,<%

@>ʻ <''< .ʻ +#.0>Dʻ 1#+ʻ <?ʻ @<Dʻ $>>0ʻ '1.>?>>0ʻ 0ʻ <.. , 0=ʻ <+ʻ +@>ʻ A1.+!ʻ +@>ʻ 1'' C>.ʻ '1#0Dʻ +@>ʻ $ .Dʻ @<Dʻ '%1J0Lʻ @>ʻ '1%%1J>D!ʻ @1J>,>.!ʻ J +@1#+ʻ D>%<E!ʻ <0Dʻ @<Dʻ +@>ʻ =11Dʻ '1.+#0>ʻ +1ʻ .><C@ʻ ?+ <ʻ ?>,>.<%ʻ D<E?ʻ $>P '1.>ʻ @ B ʻ >ʻ '1.J<.D>Dʻ @ ?ʻ 0?+.#C+ 10?ʻ <+ʻ 10C>ʻ +1ʻ +@>ʻ A<0 ?@ʻ B 0 ?+>.!ʻ J@1ʻ 0ʻ A#.?#<0C>ʻ 1'ʻ +@>Bʻ C<#?>Dʻ %$1.01Gʻ +1ʻ $>ʻ <..>?+>Dʻ +@>ʻ B1B>0+ʻ @>ʻ ?>+ʻ '11+ʻ 10ʻ ?@1.>!ʻ <0Dʻ ?>0+ʻ @ Bʻ $<CHʻ <?ʻ <ʻ A. ?10>.ʻ 1'ʻ ?+<+>ʻ +1ʻ A< 0!ʻ J@>.>ʻ <ʻ C%1?>ʻ C10' 0>B>0+ʻ '1.ʻ +J1Mʻ <0D%+J>0+Eʻ B10+@?ʻ <DB10 ?@>Dʻ +@>ʻ J1.+@Eʻ C<010ʻ 1'ʻ +@>ʻ 0>KA>D >0CEʻ1'ʻ+@J<.+ 0=ʻ+@>ʻA%<0?ʻ1'ʻ ; B>0>? T

?ʻ <++>BA+?ʻ <+ʻ 001,<+ 10ʻ <B10=ʻ +@>ʻ .>=#% Jʻ C%>.=Eʻ1'ʻ@ ?ʻ1JOʻ1.D>.ʻ J>.>ʻ>0C1#0+>.>Dʻ J +@ʻ B1.>ʻ ?>. 1#?ʻ1AA1?+10ʻ @>ʻ .>'1.Bʻ '>%%ʻ B1?+ʻ @><, %Eʻ10ʻ +@>ʻ .<0C ?C<0?!ʻ J@1ʻ J>.>ʻ 0+>.D C+>Dʻ $Eʻ+@> .ʻ.#%>?ʻ '.1Bʻ @1%D 0=ʻ A.1A>.+E!ʻ J@>+@>.ʻ <?ʻ <ʻ C1B B#0 +Eʻ1.ʻ <?ʻ 0D , D#<%?!ʻ J@ %>ʻ +@>ʻ B>B$>.?ʻ 1'ʻ1+@>.ʻ '.<+>.0 M+>?ʻ '1#0Dʻ ?1B>ʻ C1BA>0?<+ 10ʻ '1.ʻ +@>ʻ ?#..>0D>.ʻ 1'ʻ +@> .ʻ A. ,<+>ʻ '1.+#0>?ʻ 0ʻ +@>ʻ C10?>F#>0+ʻ <#=B>0+<P+ 10ʻ1'ʻ+@1?>ʻ1'ʻ+@> .ʻ'.<+>.0 +Eʻ @>.>ʻ J<?ʻ 01ʻ10>ʻ 1'ʻ+@>ʻ .>% = 1#?ʻ 1.D>.?!ʻ +@>.>'1.>!ʻ 0ʻ J@ C@ʻ +@>ʻ <.C@P $?@1Aʻ >KA>. >0C>Dʻ ?#C@ʻ <ʻ D1==>Dʻ .>? ?+<0C>ʻ +1ʻ @ ?ʻ A%<0?ʻ <?ʻ 0ʻ @ ?ʻ 1JOʻLʻ B1.>ʻ +@<0ʻ <ʻ +@1#?<0Dʻ '. <.?!ʻ <CC1.D 0=ʻ +1ʻ ?1B>ʻ <CC1#0+?!ʻ F# ++>Dʻ +@>ʻ C1#0+.Eʻ <0Dʻ A<??>Dʻ1,>+ʻ+1ʻ <.$<.E!ʻA.>'>.. 0=ʻ .<+@>.ʻ+1ʻ% ,>ʻJ +@ʻ +@>ʻ 0' D>%ʻ +@<0ʻ C10'1.Bʻ +1ʻ +@>ʻ ?+. C+ʻ %>++>.ʻ1'ʻ+@> .ʻ '1#0D>. ?ʻ .#%>? '

Lʻ .% $ ʻ : 1 (,$ ʻ0 ! /! ʻ #$,) %), %ʻ (A C3 ʻ 5

@>’ D '' C#%+ >?’ 1'’ +@>’ .>'1.B’ J>.>’ A>.@<A?’ <#=P B>0+>D’ $E’ +@>’ B1D>’ 0’ J@ C@’ +’ J<?’ C10D#C+>DL’ ?<$>%%<!’ 0D>>D!’ #?>D’ <%%’ =>0+%>0>??’ <0D’ A>.?#<? 10!T’ $#+’ ; B>0>?’ C<.. >D’ B><?#.>?’ J +@’ <’ @ =@’ <0D’ 0>KP 1.<$%>’ @<0D ’ >’ J<?’ 0<+#.<%%E’ 1'’ <0’ <#?+>.>’ <0D’ <.$ +.<.E’ +>BA>.!’ <0D’ +@>’ ?>,>.>’ +.< 0 0=’ @>’ @<D’ #0P D>.=10>’ B<D>’ @ B’ %>??’ C@<. +<$%>’ '1.’ +@>’ %<A?>?’ 1'’ 1+@>.?L’ >?A>C <%%E’ 1'’ +@1?>’ J@1!’ % H>’ @ B?>%'!’ @<D’ ,1%#0+<. %E’ 0C#..>D’ +@>’ 1$% =<+ 10?’ 1'’ B10<?+ C’ .#%>’ >’ J<?’ C10?C 1#?’ 1'’+@>’ .>C+ +#D>’ 1'’@ ?’ 0+>0+ 10?L’ <0D!’ <?’ @>’ D>0+ ' >D’ @ ?’ 1J0’ 0+>.>?+?’ J +@’ +@1?>’ 1'’ +@>’ C@#.C@!’ @>’ .>=<.D>D’ <%%’ 1AA1? + 10’ +1’ @ B?>%'’<?’ <0’ 1''>0C>’ <=< 0?+’ .>% = 10!’ J<..<0+ 0=’ +@>’ B1?+’ A>.P >BA+1.E’>K>.+ 10’ 1'’A1J>.

@>’ C%<B1#.’ .< ?>D’ <=< 0?+’ @ ?’ A.1C>>D 0=?’ @>M’ C<B>’ <+’ %>0=+@’ ?1’ <%<.B 0=!’ +@<+’ +@>’ =>0>.<%’ 1'’+@>’ .<0C ?C<0?!’ J@1’ .>? D>D’ <+’ 1B>!’ - 6: !*’ D>+>.P B 0>D’ +1’ <0+ C A<+>’ +@>’ .>=#%<.’ A>. 1D’ 1'’@ ?’ , ? +’ +1’ <?+ %>’ '1.’ 0?A>C+ 0=’ +@>’ <''< .?’ 1'’ +@>’ 1.D>.’ ?’ @>’ J<?’ @ B?>%'’ <’ C10,>0+#<%!’ @ ?’ A.>"#D C>?’ J>.>’ 1'’ C1#.?>’ <%%’ >0% ?+>D’ <=< 0?+’ +@>’ B><?#.>?’ 1'’ .>'1.BL’ <0D’@>’C<B>’ 1,>.’ '#%%E’.>?1%,>D’ +1’ C1BA>%’ ; B>0>?

E, $5 ’33!’ ’ ! J 1!’ 5’ %’ %’ (%5’5’8, !’ 1!’.,!’ 3!’ ! J N$, %’8, ’5’8 ;)%)5 ’ ,4!’,,,!’ (%3!’F.!) ’ %(($)’ 3) ’ A ’ 1,' % ,)’%’4 ,)’’ % C’%)5’ A ’ *A , ,%)’ ($) , ’BA ’ A ’( ).) $%’ 5 ’B%’3 (; 5’< BA,(A’B $5’ 1’A’1 ’ 3 4%4 ’A $'A’) ’A’4 ’%$; A) ,(% 5’ % 1)’ 0’A’B ! L’ QQ % %4%’ % ’ 1)+% [%C ’ , ’ Y’( )’ ,1’ %' %5 ’ C’ %1 ’ %)’(% ,) ’2$ ’ % ’ 4%>’ %’ ’(%G) ’C’A (A%’5$)%’ 5 ’ % ’ % ’3 $%5,%’ ( )’ $%>’ .,5%5’C’ 0,(%(,%’ %’2$ ’. %)’ (%$ $ %!’ ’ ’(%’%51, %4 ’ 2$ ’ % ’ 0$ ’ ’ ( ).) ’5)5 ’) ’ %’(4 ’A ,)%’5)5 ’)’ ' % ’)’ ’ 3 3, ’ 5,%’ ’ 0 (’5 ’ $’ %) ’5 ![’)>’ 0 1 ’ %3!’ 1%)%, ’ $5, ’ 1!’ ,,,! A’ 01

.>?+.< 0+ 10 @>. '>>% 0=?! <0D A<+ >0+%E J< +>D +1 +@> >0D @>0 @> ' 0 ?@>D! ?@> C<%B%E <?H>D @ B Q ' @> J>.> 0 @ ? ?>0?>?! <0D H0>J J@1B @> J<? +@#? <DD.>?? 0=2?C >?!R .>A% >D +@> >0.<=>D '. <.! <B 0 B E ?>0?>?! <0D H01J ,>.E J>%% J@1B <B ?A><H 0= +1LO +@> I #>>0 1 <?+ %>! < B>.> @<0D'#% 1 D#?+ % H> B E?>%'ZR +@ +@>?> J1.D?! @> .#?@>D 1#+ 1 +@> <A<.+B>0+! ?@#++ 0= +@> D11. <'+>. @ B J +@ '#. 1#? , 1%>0C> T

#C@ B A1+>0+ $#.?+? 1 A<?? 10 C1#%D 1 C1#.?> @<,> 01 A1J>. +1 +#.0 +@> F#>>0 '.1B @>. A#.A1?> @> =>0>.<%! @1J>,>.! 10 @ ? .>+#.0 +1 +<%E! @<D ?#' C >0+ <DD.>?? +1 1$+< 0 <#+@1. +E '.1B @ ? @1% P 0>?? +1 ?>0D < C1B B ?? 10 1 C10,>0+#<%? +1 <?+ %>! J@1 ?@1#%D $> <??1C <+>D J +@ ; B>0>? 0 +@> B<P 0<=>B>0+ 1 +@> .>'1.B @>?> 0D , D#<%? ?110 '1#0D +@>B ?>%,>? B>.> CEA@>.?! <0D!@ =@%E 1 '>0D>D <+ +@> % ++%> <CC1#0+ J@ C@ +@> <.C@$?@1A B<D> 1 +@> . <#+@1. +E! +@>E A.>'>..>D ?#C@ C1B A%< 0+? 1 @ ? A.1C>>D 0=? +1 +@> A10+ ' C<% C1#.+! +@<+ %>K<0P D>. J<? 0D#C>D! J +@ +@> <D, C> 1 +@> 1%%>=> 1 <.D 0<%?! +1 ??#> < $. >'! 1,>B$>. :! 6: ! A>.>BA+1. %E 0@ $ + 0= +@> ?1,>.> =0? '.1B A.1C>>DP 0= '#.+@>. 0 +@> <''< .! #0+ % + @<D $>>0 .>=#M %<.%E ?#$B ++>D '1. >K<B 0<+ 10 +1 +@> @><D 1 +@> C@#.C@ '

L ,55 , 8, 5 =,1 ; 5% C 8%G%)% 5 =,1) (!) 33! 6 ! 6I! J .%1 : > F,,,!
1 (,$ 4$: ! =,1)! .% $: 1 (,$ 4! 0 ! D! J N$, % , 5 8 ; : ! =,1! 0 ! ! J #$,) %;)%)5 ,4!,,,! (%3!F.! J $'),), % (A C3 5 E, $5 5 4 * 13)5, 5 %E,; ,4! ,! (! F,!

?<$>%%<!' 10' .>C> , 0=' +@ ?' #0 J >%C1 B >' B <0D<+>!' 0?+<0+%E' ?>0+' +' +1' ; B >0>?' @>' ?A . +' 1 ''+@>' %<+P +>.!' @1 J >, >.!' .1?>' 0' A.1A1.+ 10' +1' +@>' 1$?+<C%>?' +' @<D' +1' >0C1#0+>.' >' ?1#=@+' 10%E' +1' .<%%E' +@>' F#>>0 ?' C1#.<=>!' $>?>>C@ 0=' @>.' 01+' +1' '< 0+' 0' +@>' =11D' J 1.H!' 01 J' +@<+' +' J<?' ?1' '<.' <D, <0C>D!' <0D' J @ C@' @>' <??#.>D' @>.' J<?' <%.><DE' <++>0D>D' J +@' ?#C@' $>0>' C>0+' '.# +?' <?' C1#%D' 01+' '< %' +1' 0?#.>' +@>' A.1+>C+ 10' 1 '' ><, >0' ?<$>%%<!' >, >.E' <C+' 1 '' J @1?>' <DB 0 ?+.<+ 10' B <E' X$>' ?< D' +1' @<, >' @<D' .>'>.>0C>!' B1.>' 1.' %>??' .>B1+>!' +1' +@>' 0+>.>?+?' 1 '' .>% = 10!' J<?' <?' % ++%>' % H>%E' <?' @ B?>%''+1' '<%+>.' 0' <' B<++>.' J @ C@' A.1A1?>D' +@>?>' 0+>.>?+?' <?' +?' D .>C+' <0D' 10%E' 1$">C+' @>' <??#.>D' @>.' B 0 ?+>.' +@<+' ?@>' J 1#%D' ?#AA1.+' @ B' 0' <%%' +@<+' J<?' A.<C+ C<$%>!' <0D' ?@>' %1?+' 01' + B>' 0' A.>?>0+ 0=' +@>' <''< .!' +@.1#=@' @>.' <=>0+?!' 0' ?#C@' <' % =@+' +1' +@>' C1#.+' 1 '' 1B>' <?' B =@+' J 1.H' <' B1.>' '<, 1#.<$%>' D ?A1? + 10' 0' +' 0' +@ ?' ?@>' ?#CC>>D>D!' +@1#=@' 01+' + %%' <'+>.' B #%+ A% >D' D>%<E?' <0D' >B $<..<??P B>0+?' L' <0D' ?#C@' <BA%>' A1 J>.?' J>.>' C10C>D>D' +1' ; B>0>?' - 6 : 9*!' 0' C10"#0C+ 10' J +@' +@>' <A1?+1% C' 0#0C 1!' <?' >0<$%>D' @ B' +1' C10?#B B<+>' @ ?' =.<0D' ?C@>B>' 1 ''.>'1.B!' 0' D>' <0C>' 1 ''<%%' +@>' >''1.+?' 1 ''@ ?' >0>B >? T

@ >' .>'1.B<+ 10' +@#?' 0+.1D#C>D' >K+>0D>D' +1' +@>' .>% = 1#?' 0?+ +#+ 10?' 1 ''>, >.E' 1.D>.' >F#<%%E' J +@' @ ?

Q' #$,) %), %' E,5%' 5' =,; A, ' 1 ,%' ' A, ,3' E' %3!' 1) ' ,4!' ,!' (! F, J F, .! J , ' 1!' $5, ' 1!' A,!' 33!' ' 5, ($ ' A ' .%, $ ' 1)% ,(' □
0 1 ' 00 (5' 4C' =, 1) ' ,)

' ' S

1J0' +' J<?' B1?+' ?><.C@ 0=' 0' +?' 1A>.<+ 10!' .><C@P 0=' >,>0+#<%%E' +1' +@>' B1.<%' C10D#C+' 1'' +@>' ?#$">C+?' 1'' +!' 01' %>??' +@<0' +@>' B>.>' A1 0+?' 1'' B10<?+ C' D ?C P A% 0>' ?' .>=<.D?' +@>' %<++>.!' +' B<E' $>' +@1#=@+' 1'' D1#$+'#%' $>0>' +' +1' @<,>' >0'1.C>D' +@>' . = D' 0+>.A.>+P <+ 10' 1''<' .#%>' '1#0D>D' 10' +@>' B>%<0C@1%E' A. 0C A%>' +@<+' +@>' <B1#0+' 1''@<AA 0>??' 0' +@>' 0>K+' J1.%D' ?' +1' $>' .>=#%<+>D' $E' +% <+' 1''?>%'M 0'% C+>D' ?#''>. 0=' 0' +@ ?' #+' +' ?@1#%D' $>' .>B>B$>.>D!' +@<+' @1J>,>.' 1$">CP + 10<$%>' ?#C@' <' .#%>' B<E' $>' 0' +?>%'!' E>+!' J@>.>' +' ?' ,1%#0+<. %E' <??#B>D' <?' <0' BA>.<+ ,>' B1.<%' 1$% =<P + 10!' +' C<001+' $>' D ?.>=<.D>D' J +@1#+' +@.1J 0=' D1J0' +@>' $<.. >.' +1' #0$1#0D>D' % C>0?>L' <0D' +@<+' +@>' .>P <??>.+ 10' 1'' +!' #0D>.' +@>?>' C .C#B?+<0C>?!' B#?+' $>' <' 0>C>??<.E' A.>% B 0<.E' +1' <0E' >''>C+#<%' .>'1.B' 1'' B1.<%?

@>' $>0>' C <%' C@<0=>?' J.1#=@+' 0' +@ ?' %<++>.' A<.P + C#%<.!' J@ C@' ?<$>%%<' @<D' '<.' B1.>' <+' @><.+' +@<0' <0E' >K+>. 1.' '1.B?' 1''D ?C A% 0>!' <.>' +@>' +@>B>' 1''#0P F#<%' >D' A<0>=E.C' J +@' @>.' C10+>BA1.<. >? T' @>' A<0 ?@' C%>.=E!' <?' ' @<,>' $>'1.>' @<D' 1CC<? 10' +1' .>P B<.H!' J>.>' ><.%E' 01+>D' '1.' +@> .' D ??1%#+>' J<E' 1'' %'>!' J@ C@!' +1' <' C>.+< 0' >K+>0+!' ?>>B>D' +1' $>' C1#0P +>0<0C>D' $E' +@>' %<J' +?>%'' '' @ ?' %<K +E' 1'' B1.<%?

L' !' !' ,($ ' * %' 1 >' ,)A ,' A' % ' 0' $(A'3%) ' %4, ' 0 !' 6!' J' 1%5G' %'5, 5',) % !' P ' %,)%' 8, '5' ' C '*% !' !'(!') %C'* ,,(' 4 ' %' ', >' ((,!J ' % %(,)' \(!3!' IDIX' A' 00); ' A'3%(,(' 0' ( )($4,)%' ' C' 0' A ' '%,G5' $13 ' 4C' A' ('C'B%' 0$ C' ('; . &'%' A C'B ' (% 5'), 5' %)5' A' %)(,)'*"# &' 0' B%' %') 'A' ',) %4' %' *% , '3 1, 5' A ',' $' '(%' 0 ' 3 % 5' %B ' '$>

J<?C<.. >D +1 < B1?+ %<B>0+<$%> >K+>0+ #0D>. +@>
%<?+ .> =0! J@>0 <%% 1.D>.? 1'' >CC%>? <?+ C?! J@>+@>.
.>=#%<. 1. ?>C#%<.! 0'>C+>D A.1$<$%E $E +@> C1..#A+
>K<BA%> 1'' +@> C1#.+! <.> .>A.>?>0+>D -J > B<E @1 >
+ ? <0 >K<==>.<+ 10* <? J<%%1J 0= 0 <%% +@> >KP
C>??>? 1''?%1+@ <0D ?>0?#<% +E 1 D>A%1.<$%> < A1%P
%#+ 10 1'' +@> ,>.E ?<0C+#<. >? 1'' .>% = 10 C1#%D 01+
'< % +1 1CC<? 10 ? 0C>.> .>=.>+ +1 < A#.> <0D , .+#1#?
B 0D % H> ?<$>%%< ? @> ?+< 0 @<D ?#0H +11 D>>A!
@1J>,>.! +1 $> .><D %E A#.=>D <J<E >. A>.?10<%
>K<BA%>! 0D>>D! <0D +@> ?C.#A#%1#? 0+>=. +E J +@
J@ C@ ?@> .>?>.,>D <%% >CC%>? <?+ C<% A.>'>.B>0+ '1.
A>.?10? 1''#0$%>B ?@>D A >+E! C10+. $#+>D = ><+%E +1
$. 0= <$1#+ <0 <B>% 1.<+ 10 0 +@> B1.<%? 1'' +@>
?>C#%<. C%>.=E #+ +@> ?>C%#D>D 0B<+>? 1',+@>
C%1 ?+>. J>.> %>??? 1A>0 +1 +@>?> 0'%#>0C>?! <0D +@>
J1.H 1''.>'1.B C1#%D 10%E $> <CC1BA% ?% >D +@>.>! $E
$. 0= 0= +@>B $<CH +1 < .>,>.>0C> '1. +@> . 1J0
0?+ +#+ 10?! <0D $E +@> ?%1J 1A>.<+ 10 1'' A#$% C
1A 0 10

1+J +@?+<0D 0= +@> F#>>0 ? B1?+ ><.0>?+ J ?@>?!
+ B<E $> D1#$+>D J@>+@>. +@ ? J1#%D" @<,> >,>.
$>>0 <C@ >,>D J +@1#+ +@> C11A>.<+ 10 1''< B<0 % H>
; .<>0>?! J@1?> C@<.<C+>. C1B$ 0>D 0 +?>%''<%% +@>
>??>0+ <% >%>B>0+? 1'' < .>'1.B>. <AA %E! ?<$>%%<
J<? A>.B ++>D +1 ?>> $>'1.> @>. 1J0 D><+@! '' 01+

% ,) '' A , %33% %)5 3 ; *A ,)5 1'BA ( )($4,)%'
(,4,) '' % 4%5' '0 '5, ,) '$, A; B% . %)(,) 5 4C %B< %
,) '' A 1'0 1' A) B 1)! (, ($1 %)(' 5 $4 ,13$;
P 13 8, ,% 5 $F %4 ,) 1 1 % $ A
1! ,! 33! e J H!X 3%,) ,)0$)(' 0 A %A 1 %) !
, 3 4%4 C A) C ($) C ,)

= =

+@>' C1BA%>+ 10!' <+' %><?+' +@>' C1B B>0C>B>0+' 1''<' D>P C D>D' <B>0DB>0+' 0' +@>' B1.<%?' 1'' +@>' .>% = 1#?' 1.P D>.?'L' <0' <B>0DB>0+' J@ C@!' ?1' '<.' '.1B' $> 0=' +.<0?P +1.E' 0' +?' C@<.<C+>.!' C<%%?' '1.+@' +@>' B1?+' >BA@<+ C' >#%1= .0' '.1B' <' <?+ % <0' J. +>.' '<.' 0' +@>' '1%%1J 0=' C>0+#.E'L' J@1!' J@ %>' @>' %<B>0+?' +@> .' <0C >0+' %<K +E!' $1%D%E' C@<%%>0=>?' C1BA<. ?10' '1.' +@>' .>% = 1#?' C1BP B#0 + >?' 1'' @ ?' 1JO' C1#0+.E!' J +@' +@1?>' 1''<0E' 1+@>.!' 0' +>BA>.<0C>!' C@<?+ +E!' <0D' >K>BA%<.E' A#. +E' 1''% '>' <0D' C10,>.?<+ 10 T

L' '.% $' : 1 (,$' ' 4$' : ,' =,1)!' 0 !

A' %$ A ,C')' BA 1' A' ,0' 0' *% 5,)%' =,1)' 1%,) C' ',' .% ' : 1 G' 5' *% !' 8' B%' 4 1',)' A' ., %'' 0' !' $ % ,%') %' 5' 6 6' %)5' (,. 5'A,' 5$(%,)' %' ; (% %' BA' A' 4%,) 5' ' %' 3$' 0' A,' (, ,(%' %(2$%,) %)(' B, A' A' %)(,)' (% ,(!' 8' .7%' %0 B% 5' 1%5' 3 0' 0' A' A$1%), , ',)' A' $),. ,C4 %' , $% ,)' BA,(A' A' 0, 5' B, A' (5,' 4$' $4 2$) C' F(A%)' 5' 0' A' A ,(%' (A%,' ,)' %' (A' ( ) C' 0 $)5 5' %' 5 !' 9A,' A$' ((\$3, 5' A' B%' (A)' 4C' A' $),. ,C' 0' (% %' 3%C' A' 1' 5, ,)'\$, A 5' A) \$' BA,(A' (\$5' 4')5 5' A' 1 1 C' 0', ', \$, \$' 0 \$)5' 4C' %' 0%, A0\$' (5' 0' A,' F % 5,)% C' ,0 ! A' 1' %\$ A),(' \$ (' 0',)0 1%,)' B' A B)' 3)' ' A,1!' 8' 4%,) 5' %)' ,) ,1% '%(2\$%,) %)(' B, A' A' 3 ,.% ' ,0' 0' A' *% ; 5,)%' 0 1' A' 0' A,' 3 ,)(,3%' 5 1 ,(' BA' 0\$), A 5' %4\$); 5%)(' 0' 1,), ( )(' 0 1' 3)%' 4 .%,)<' BA, ' A' % ; (A,. ' 0' A' \$),. ,C' \$33, 5' %' 1% ' 0' 5 (\$1)' %,)'' ' A' 3\$4 ,(' .,(' 0', ' 3%)!' 1' A' %)5' ,1, %' 1% ,% ' : 1 G' 3 3% 5' A,' 4, ' %3AC' %0 ' 1%)C' C % ' 0' 3%,)' %4 \$!' A' B @' 0\$ C' %) B 5' 3\$4 ,(' F3 (%,)<' %)5' , ' 1 , ' %

$(A % %5 A %) 5 ,(!)), F3 %5 5 $4 BA A %)C A,) '1 F( ) 3 0 (,) , B%C ($5 4 %(A, . 5< Z 2$ 3 ,) ') %)3) %) ,$ 2$,52$%1 %$ 3 0 (,$ 3 ,)),1 1 , 3 5$4, %.,![P ,4! 8, 3! .! 1! ,! 3! 6H!X A)(1,$1 1%C 4 A $'A 1 BA% F(,. Ł4$, (%)) 4 5), 5 A% A)% %,. , B ,),) %) % C%)5)% $ % 1%)) B, A 0,5 , C %)5 %(($ %(C B, A (1; 1)5%4 ,4 %, C 0 3,),) A $'A B, A %+$5' 1) 1 ,1 B% 3 5 ,) %) $)5$,1% 0 A 2$%, , 0A, A ! , 5, ,) '$, A 5 1 . 4C $(A 4 %$ C %)5 (( ) 0 % ,), C % A%. 1%5 , % F >4 @ ,) 1%)C 0A (A %)5 (' 0 A 3),) $ %! A 0, 5, ,) 4 ,) ' A% $ 5 ,) A 3) B @ B% 3$4 , A 5 % (% % 6 H! A% ,)(4) 3 ,) 5 B,(,) : 1%)C %)5 3 A%3 BA ! : 1 G B% 4$, C (($3, 5 B, A A , % C $($4 % ,) 5$,) ' A 1%,)5 0A, ,0 %)5 3$4 , A 5 . % B @ ,) %,) 3 %)5 . 4 A 0 BA,(A A B B, A % %)5 '%)(! 8 5, 5 0 %' (% % A 6I ,) A ,F C> ,F A C % 0A, %' %5) '4 A,)5 A,1 % 3$ % ,) 0 5, ,) 5) %)5 ., $ BA,(A , $00,; (,) C (1 1 1 % 5 ,) B ,) 0A, 3, %3A<

: 1,), $)2$%1 (,)) ($,
5 2$%1 3 $,4$ ($ %.,![

A B @ 0 : 1 G A% 0$), A 5 A 4% , 0 % A 4, ; ' %3A, 0 =,1) B ,,(A A%. ,)(%33 % 5 ,) 3%,)! A 1 ,13 %) 0 A 3 4%4 C , #$,) %), %K + BA,(A B, A , 1 , 0 (,) , %, %)' 1) 3) %(3, $ 1% 0 5 %, 5 %B) 0 1 . C 2$% BA)(A, 3% ,) ,)5$ C ($5 ' %) A 1! %$ A B% % %) (, (%) %)5 13 C 5 ,) 3 ($,) ' A 4 %,0,(% ,) 0 *% 5,)% =,1) 4C A ($ 0 1 < %(, ($1 %)(BA,(A 3 4%4 C 5, 3 5 A,1 % , 0%, A ,) A ,# "& 0 ,, C A%) 1 0A, %5 B, 4 %5C ', . ! A B @ B% 3$4 , A 5 % % 1 6 !) %55, ,) A %$ A , , A%. %.%, 5 1C 0 0 %($, $ 5 1%)$ (,3 3) 5 1 4C ! ! ,(A) , 5 Y $1%5 %E,5% 5 * % 5)% =,1) ![B% B ,) B, A; ,) A% 0 %( ) $ C %0 A * % 5,)% K 5 % A 4C Y ,1 (,%5 5 % (% % 5 * 1,,%![A ,',)% ,) Z . C %)(,) Z B% F %) ,) A % (A,. 0 A%) 4 A $,) #$,) %), % ,1 !

%)5‘ , ‘ 0)‘ (, 5‘ 4C‘ A,1!‘ ‘ %$ A ‘ .,5) C‘ A%5‘ %((‘ ‘ A ‘ ( ) 13 % C‘) ,(‘ 1 ‘ 0‘ BA,(A‘ 0$), A 5‘ A ‘ 4% , ‘ 0‘ *% K‘)% % , . ‘ 0 1‘ BA,(A‘ ,)5 5‘ , ‘ FA,4, ‘) ‘ 1% ,% ‘ 5, (3%)(C!

A ‘ F % 5,)% C‘ (A% %(‘ 0‘ =,1) ‘A% ‘)% $ % C‘ % %(5‘ A ‘ %) ,)‘ 0‘ 0 ,')‘ B , ‘ %)5‘ 3 (,% C‘ A ‘)(AK‘ BA ‘ A%. ‘ 3 5$(5‘ 3 % 5‘ 4, ' %3A, ‘ 0‘ A,1 ‘ A ‘ 1 ‘ 1,))‘ 0‘ A ‘ , ‘ 4C‘ (A, ‘ A ‘ 2$)‘ , A 3‘ 0‘ , 1 !‘ ‘ , ‘ B ,)‘ B, A‘ A ‘ ,13 ‘ '%)(‘ %)5‘ 3 3,($, C‘ BA,(A‘ (A% %(, ‘ A, ‘ A ‘ (13 , ,) < %)5‘ ,)‘ A ‘ ') % ‘) ‘ 0‘ , ‘) ,1) ‘)‘ % ‘ 1% ‘ 4 A‘ 0‘ (A$ (A‘ %)5‘ % ‘ , ‘ 2$, ‘ % ‘ A 5 F‘ % ‘ A ‘ 1 ‘ 4,' 5‘ %51, ‘ 0‘ A ‘ *% 5,)% ‘ ($ 5‘ 5 , !) A ‘ ,0 ‘ 4C‘ % , ‘ A% ‘ 4 %,) 5‘ %‘ . C‘ $)5 . 5‘ +0$!‘ A ‘ %$ A ‘) ‘ ( ))‘ B, A‘ A ‘ F % 5,)% C‘ 2$% , , ‘ % C‘ %33 %,),) '‘ ‘ A, ‘ A ‘ 1%@ ‘ A,1‘ $‘ %‘ ‘ 0‘ $),. %‘ '),$ ‘ J‘ 2$, ‘ ,5,($; $ ‘ ,. % ,) '‘ , K‘ !‘ %)(%(‘ A,1 0!‘) ‘ 1%C‘ 0 1‘ 1 ‘ ,5T% 0‘ A ‘ A, ,%)K‘ %(($ %(C‘ 0 1‘ A ‘ 0%(‘ A% ‘ A ‘ 0 ‘ A ‘ (11)(1)‘ %)5‘ ( )5$(‘ 0‘ A ‘ B% ‘ 0‘ : %)%5% (A, 0C‘ ‘ A ‘ ($) ‘ 0‘ =,1) ‘ BA ‘ % ‘ B ‘ A%. ‘)‘ B% T) ‘ .)‘ ,) 5$(5‘ % ‘ ($ ‘ , ‘ %0 ‘ A ‘ (‘ 0‘ A ‘ B% !‘ % , ‘ (@) 5‘ % ' C‘)‘ A ‘ ,') %)(‘ %)5‘ '$,4, , C‘ 0‘ A, ‘ %5 < A ‘ .)‘ 3 . 5‘ A% ‘ A ‘ B% ‘) ‘ 1, %@)!

5

= : ! J * *;

* E 8 !

6 : : ! 8

&>0>.=E! 1.C10?+<0CE 1''A#.A1?>! ??>>B?+1 $>%>??A.1A>.%E<0 0D>A>0D>0+A1J>. 1'+@> B 0D +@<0<B1D> 1'<C+ 10 $E J@C@ +? ,<. 1#? A1J>.? 1A>.<+> J +@ >''>C+L $#+! @1J>,>. +@ ? B<E $>! + >0+>.? B1.> %<.=>%E! A>.@<A?! +@<0 B>.> +<%>0+! <? C1BB10%E #0D>.?+11D! 0+1 +@>' '1.B<+ 10 1'' J@<+ ? C<%%>D C@<.<C+>.! <0D ? 1'+>0 C10'1#0D>D $E +@> ,#%=<.J +@ +<%>0+1''+@>@ =@>?+1.D>. 0+@>1.D P 0<.E C10C>.0? 1'% '>! 0D>>D! + ? B1.> ?>., C><$%> +@<0 $. %% <0+A<.+?L J@ %>! 0 +@> B1.> BA1.+<0+! +@>?>%<++>.<.>1'% ++%>J> =@+J +@1#+ +! >,<A1.<+P 0= 10%E 0 $. >'' <0D $<..>0 '%<?@>?! J@C@ B<E D<GG%>+@>>E> $E+@> .?A%>0D1#.! $#+A<?? <J<E <0D <.>'1.=1++>0

@> BA1.+<0C> 1'' B1.<% >0>.=E ? '>%+01+ 10%E J@>.> + J1#%D $> >KA>C+>D! 0+@>C10C>.0? 1''<C+ ,> % '>! $#+ 0 +@1?> B1.> >KC%#? ,>%E 1'' <0 0+>%%>C+#<% C@<.<C+>.!M M0 D>% $>.<+ ,> <??>B$% >?! '1. >K<BA%>

8 6 ; ‘ ‘

J@>.>‘+<%>0+!‘ <?‘ #?#<%%E‘#0D>.?+11D!‘ B =@+‘ $>‘ ?#AP A1?>D‘+1‘<??>.+‘<0‘<$?1%#+>‘?#A.>B<CE!‘!$#+‘ J@>.>‘ +‘ ?‘ 0,<. <$%E‘ B<D>‘+1‘ $>0D‘+1‘+@>‘C10+.1%% 0=‘ 0P '%#>0C>‘1'‘+@ ?‘ A. 0C A%>‘ 1‘ B<0‘ D>?+ +#+>‘ 1'‘ +‘ C<0‘ $>‘+@>‘ %><D>.‘1'‘<‘A<.+EL‘ J@ %>‘+@>.>‘ <.>‘ '>J‘ %><D>.?!‘ A.1$<$%E!‘ J@1‘D1‘01+‘0#B$>.‘ 0‘+@> .‘.<0H?‘ B 0D?‘ '.1B‘ J@ C@‘ +@>E‘ J1#%D‘ $>‘ C1BA>%%>D‘+1‘ ?@. 0H‘ 0‘ <‘ C10+>?+‘ '1.‘ A#.>%E‘ 0+>%%>C+#<%‘ A.>>B P 0>0C>

@ ?‘ >0>.=E‘1'‘A#.A1?>‘A.>?>0+?‘ +?>%'‘ 0‘ <‘ E>+‘ B1.>‘ BA1? 0=‘ '1.B‘ J@>0‘?+ B#%<+>D‘ $E‘ ?1B>‘ 0P +>0?>‘A<?? 10!‘ <?‘ <B$ + 10!‘ 1.‘+@>‘ 01$%>.‘A. 0C A%>?‘ 1'‘A<+. 1+ ?B‘ 1.‘ .>% = 10L‘ J@>0‘+@>‘ ?1#%!‘ ?A#.0 0=‘ ,#%=<.‘ C10? D>.<+ 10?‘ 1'‘ 0+>.>?+!‘ ?‘ .><DE‘+1‘D1‘<0D‘ +1‘ D<.>‘ <%%&'1.‘ C10?C >0C>‘ ?<H>L‘ J@>0!‘ 0?>0? $%>‘ <% H>‘+1‘<%%‘+@<+‘+@ ?‘ J1.%D‘C<0‘= ,>‘1.‘+<H>‘<J<E!‘ +‘ %11?>0?‘ +?>%'‘'.1B‘+@>‘=.1??‘+ >?‘ J@ C@‘$ 0D‘ +‘ +1‘ ><.+@!‘<0D!‘ @1J>,>.‘@#B$%>‘+?‘A1J>.?‘ 0‘>,>.E‘1+@>.‘ A1 0+‘ 1'‘ , >J!‘ <++< 0?‘ <‘ =.<0D>#.‘ <0D‘ >%>,<+ 10‘ J@ C@‘=>0 #?‘<%10>!‘@1J>,>.‘= '+>D!‘C<0‘0>,>.‘.><C@

#+‘ +‘ ?‘ J@>0‘ <??1C <+>D‘ J +@‘ >K<%+>D‘ =>0 #?!‘ <0D‘#0D>.‘+@>‘<C+ 10‘1'‘+@>‘A1+>0+‘A. 0C A%>?‘<$1,>‘ B>0+ 10>D!‘+@<+‘+@ ?‘B1.<%‘>0>.=E‘C10,>E?‘<0‘ B<=>‘ 1'‘A1J>.‘J@ C@‘ <AA.1<C@>?‘ 0><.>.‘+@<0‘ <0E‘+@ 0=‘ >%?>‘ 0‘+@ ?‘ J1.%D‘+1‘+@<+‘1'‘<‘D , 0>‘ 0+>%% =>0C>‘ +‘ ?!‘ 0D>>D!‘?#C@‘ <=>0+?‘+@<+‘5.1, D>0C>‘?>%>C+?‘ '1.‘+@>‘<CC1BA%?@B>0+‘1'‘+@1?>‘=.><+‘.>,1%#+ 10?‘ $E‘J@ C@‘+@>‘J1.%D‘?‘?@<H>0‘+1‘+?‘'1#0D<+ 10?!‘@>J‘ <0D‘B1.>‘$><#+ '#%‘?E?+>B?‘C.><+>D!‘<0D‘+@>‘@#B<0‘ B 0D‘C<.. >D‘'1.J<.D!‘<+‘<‘? 0=%>‘?+. D>!‘0‘+@>‘C<.>>.

1’‘ BA.1,>B>0+!‘ ‘#.+@>.‘ +@<0‘ +‘ @<D‘ <D,<0C>D‘ ‘1.‘ C>0+#. >?‘ +‘ B#?+!‘ 0D>>D!‘ $>‘ C10‘>??>D‘ +@<+‘ +@ ?‘ A1J>.‘#%‘ <=>0CE‘ ?‘ ?1B>+ B>?‘ ‘1.‘>, %!‘ <?‘ J>%%‘ <?‘ ‘1.‘ =11D‘ +‘ ?‘ +@ ?‘ ?<B>‘ BA#%?>‘ J@ C@‘ ?A#.?‘ =# %+E‘ B$ + 10‘ <%10=‘ @ ?‘ $%11DE‘ +.<CH!‘ <0D‘ J@ C@‘ <.B?‘ +@>‘ @<0D‘ 1’‘+@>‘ A<+. 1+‘ ?+>.0%E‘ +1‘ .>? ?+‘ @ B L‘ J@ C@‘ =%1J?‘ J +@‘ @1%E‘ ‘>.,1#.‘ 0‘ +@>‘ $1?1B‘ 1’‘+@>‘ B<.+E.!‘ <0D‘ J@ C@‘ % =@+?‘ #A‘ +@>‘ ‘ .>?‘ 1’‘A>.?>C#+ 10‘ $E‘ J@ C@‘ @>‘ ?‘ +1‘ J 0‘ @ ?‘ C.1J0‘ 1’‘ =%1.E‘ @>‘ D .>C+ 10‘ 1’‘ +@>‘ BA#%?>!‘ D ‘’>. 0=‘ 0‘ +@>‘ ?<B>‘ 0D , D#<%‘ #0D>.‘ D ‘’>.>0+‘ C .C#B?+<0C>?!‘ C<0‘ <%10>‘ D>+>. B 0>‘ J@>+@>.‘ @>‘ ?@<%%‘ $>‘ +@>‘ ?C1#.=>‘ 1.‘ +@>‘ $>0>’<C+1.‘ 1’‘ @ ?‘ ?A>C >?

@>?>‘ .>’%>C+ 10?‘ @<,>‘ $>>0‘ ?#==>?†>D‘ $E‘ +@>‘ C@<M .<C+>.‘ 1’‘+@>‘ >K+.<1.D 0<.E‘ A>.?10‘ $.1#=@+‘ ‘1. J<.D‘ 0‘ +@>‘ A.>C>D 0=‘ C@<A+>.!‘ ; B>0>?‘ D>‘ ?O>.1?!‘ <0D‘ +@>‘ O>J‘ <0D‘ %>??‘ <D,<0+<=>1#?‘ <?A>C+‘ 0‘ J@ C@‘ @>‘ B#?+‘ 01J‘ <AA><.‘ +1‘ +@>‘ .><D>.‘ 0’%>K $%>‘ C10?+<0CE‘ 1’‘ A#.A1?>‘ ‘1. B>D!‘ A>.@<A?!‘ +@>‘ B1?+‘ A.1B 0>0+‘ +.< +‘ 0‘ @ ?‘ .>B<.H<$%>‘ C@<.<C+>.‘ @<+‘ D .>C+ 10‘ +‘ B =@+‘ @<,>‘ .>C> ,>D‘ #0D>.‘ 1+@>.‘ C .C#B?+<0C>?‘ +‘ ?‘ BA1?P ? $%>‘ +1‘ ?<E‘ +‘ J1#%D‘ $>‘ 01‘ =.><+‘ ?+.>+C@‘ 1’‘ ‘<0CE!‘ @1J>,>.!‘ +1‘ B<= 0>!‘ +@<+‘ +@>‘ #0E >%D 0=‘ ?A . +!‘ J@ C@‘ 0‘ +?‘ ><.%E‘ D<E?‘ C1#%D‘ ,1%#0+<. %E‘ >0D#.>‘ E><.?‘ 1’‘ BA. ?10B>0+‘ .<+@>.‘ +@<0‘ ?#$B +‘ +1‘ <0‘ <C+‘ 1’‘>CC%>? <?+ C<%‘ 1AA.>?? 10!‘ B =@+‘ #0D>.‘ ? B %<.‘ 0P ‘%#>0C>?‘ @<,>‘ $>>0‘ <.1#?>D!‘ % H>‘ #+@>. ?!‘ +1‘ ?@<H>‘ D1J0‘ +@>‘ <0C >0+‘ A %%<.?‘ 1’‘ <+@1% C ?B!‘ 0?+><D‘ 1’‘ %>0D 0=‘ <%%‘ +?‘ ?+.>0=+@‘ +1‘ #A@1%D‘ +@>B ‘ @>‘ %<++>.‘ A1? + 10!‘ $1J>,>.!‘ J1#%D‘ ?>>B‘ $>++>.‘ <?? B %<+>D‘ +1

+@>‘ C10?+ +#+ 10‘ 1’‘ @ ?‘ B 0D!‘ J@1?>‘ ?1B$.>‘ >0+@#P ? <?B‘ 0<+#.<%%E‘ A.>A<.>D‘ @ B‘ '1.‘ +@>‘ ,<=#>‘ <0D‘ BE?+>. 1#?‘ 0‘ +@>‘ 1B ?@‘ '< +@!‘ <?‘ @ ?‘ 0'%>K $%>‘ +>BA>.‘ D D‘ '1.‘ +?‘ $1%D‘ <0D‘ <..1=<0+‘ D1=B<?’ +‘ <0E‘ .<+>!‘ +‘ J<?‘ +1‘ +@ ?‘ C<#?>‘ @>‘ D>,1+>D‘ +@>‘ J@1%>‘ ?+.>0=+@‘ 1’‘ @ ?‘ +<%>0+?‘ <0D‘ C1B B<0D 0=‘ >0>.= >?

>‘ @<,>‘ ?>>0‘ 0‘ +@>‘ A.>C>D 0=‘ C@<A+>.!‘ J +@‘ J@<+‘ A.1BA+0>??‘ @>‘ >0+>.>D‘ 10‘ +@>‘ .>'1.B‘ 1’‘ .>% = 1#?‘ D ?C A% 0>!‘ <?‘ ?110‘ <?‘ @>‘ C<B>‘ 0+1‘ 1’’ C>!‘ <0D‘ J +@‘ J@<+‘ A>.+ 0<C +E‘ @>‘ A#.?#>D‘ +!‘ 0‘ C10+>BA+‘ 1’‘ <%%‘ A>.?10<%‘ 0+>.>?+‘ <0D‘A1A#%<. +E’ >‘<.>‘01J‘ +1‘?>>‘ @ B‘ J +@‘ ? B %<.‘ G><%‘ D>,1+ 0=‘ @ B?>%’‘+1‘ +@>‘>K+ .P A<+ 10‘ 1’‘@>.>?EL‘ J +@‘C10+>BA+‘01+‘ B>.>%E!‘ 0‘ % H>‘ B<00>.!‘ 1’‘ A>.?10<%‘ C10?>F#>0C>?!‘ $#+‘ <%?1‘ 1’‘ +@>‘ B1?+‘ 1$, 1#?‘ A. 0C A%>?‘ 1’‘ =11D‘ '< +@‘ <0D‘ 0<+ 10<%‘ @101#.

6::’ ><.%E‘> =@+‘E><.?‘@<D‘>%<A?>D‘? OC>‘+@>‘C10P F#>?+‘1’‘ .<0<D<!‘ <0D‘ +@>‘ ?#$"#=<+>D‘H 0=D1B‘C10+ P 0#>D‘+1‘ .>A1?>‘ 0‘ A><C>'#%‘?>C#. +E‘#0D>.‘ +@>‘ ?@<D1J‘ 1’‘+@>‘ +.><+E‘ J@ C@‘ =#<.<0+>>D‘ +@>‘ #0B1%>?+>D‘ >0P "1EB>0+‘1’‘ +?‘ <0C >0+‘%<J?‘ <0D‘ .>% = 10‘ @ ?‘#0.‘ $.1H>0‘ C10+ 0#<0C>‘ 1’‘ A#$% C‘ +.<0F# %% +E!‘ >?A>C <%%E‘ D ’’ C#%+‘1‘$>‘ B< 0+< 0>D‘<B10=‘+@>‘"<.. 0=‘>%>B>0+?‘ 1’‘ +@>‘ C<A +<%!‘ J@1?>‘ B1+%>E‘ A1A#%<+ 10‘ 1’‘ 11.?!‘ .>0>=<D>?!‘ <0D‘ @. ?+ <0?‘ ?#==>?+>D‘A>.A>+#<%‘A1 0+?‘ 1’‘C1%% ? 10!‘ B#?+‘ $>‘ C@ >'%E‘ BA#+>D‘+1‘ +@>‘ D ?C.>>+‘ <0D‘ +>BA>.<+>‘C10D#C+‘1’‘+@>‘+J1‘ 0D , D#<%?‘J@1B‘ ?<$>%%<‘@<D‘C@<.=>D‘ J +@‘ +@>‘ C , %‘<0D‘>CC%>? <?+ C<%‘ =1,>.0B>0+‘ @>?>‘J>.>‘ >0D1G<!‘ 1#0+‘1’‘ >0M‘ D %%<!‘<0D‘ <%<,>.<!‘ .C@$?@1A‘1’‘ .<0<D<

@>' '1.B>.!' +@>' $. =@+>?+' 1.0<B>0+' 1'' @ ?' %%#?P +. 1#?' @1#?>!' @<?' $>>0' $>'1.>' B<D>' H01J0' +1' +@>' .><D>.' $E' @ ?' ,<. 1#?' BA1.+<0+' ?>., C>?!' $1+@' B %P +<.E' <0D' D A%1B<+ C' B B>D <+>%E' <'+>.' +@>' C10F#>?+' 1'' .<0<D<' @>' J<?' B<D>' <%C<ED>' <0D' C<A% 0M=>0>.<%' 1''+@>' H 0=D1B!' <' A1?+' '1.' J@ C@' @>' J<?' >,>.E' J<E' F#<% ' >D' $E' @ ?' A.#D>0C>!' ' .B0>??!' >0% =@+>0>D' , >J?!' <0D' %10='>KA>. >0C> T

@>' %<++>.' A>.?10<=>!' 1''B1.>' @#B$%>'>K+.<C+ 10!Z' J<?' .<E' >.0<0D1' D>' <%<,>.<!O <' >.10EB +>' B10H!' J@1' @<, 0=' $>>0' +J>0+E' E><.?' A. 1.' 1'' +@>' B10<?+>.E' 1'' <0+<' <. <' D>%' 5.<D1!' 0><.' <%%<D1P % D!' J<?' B<D>' C10'>??1.' 1'' I #>>0' ?<$>%%<!' <0D' <'+>.P J<.D?' 1'' +@>' H 0=' @ ?' ? +#<+ 10' 0>C>??<. %E' =<,>T' @ B' C10? D>.<$%>' 0'%#>0C>' 0' <%%' A#$% C' B><?#.>?' '' +@>' H>>A 0=' 1'' +@>' .1E<%' C10?C >0C>' C1#%D' $>' ?<'>%E' 0+.#?+>D' +1' <0E' 10>!' +' J<?' C>.+< 0%E' +1' +@ ?' >?+ B<$%>' A.>%<+>!' >F#<%%E' D ?+ 0=# ?@>D' $E' @ ?' %><.0 0=!' <B <$%>' B<00>.?!' <0D' #0$%>B ?@>D' A >+EL' <0D' '' @ ?' C@<.<C+>.' J<?' ?1B>J@<+' +< 0+>D' J +@' $ =1+.E!' +' J<?' 0' ?1' B %D' <' '1. 0!' ?1' '<.' +>BA>.>D' $E' +@>' 0<+#.<%' $>0>,1%>0C>' 1'' @ ?' D ?A1? + 10!' <?

RQ' U' 8 14 7K %C' A,')' A' A, ,%)' 0'A,1' Y' 5' 3 $>' 5)(,%')') ' (, ' ' %. ' 5' %),1' !0, 1' % '$%5' ( )' $)'%' F3 ,)(,%' 5')($)>' ',' 4% % % '%)%5% !Z' P:$ %' 5' : %)%5%' ,4!',!' 3!' H!X' :)G%' 5' ., 5' 5B' B, A' $00,(,)' %13 ,0,(%,)')' A' 3)%' A, ; C' %)5' 1 , ' 0' A,' 5, ,); '$, A 5' ,)5,.,5$%' +)' A,' '%; $ $' 1,), ( )(! #$,)($%> ')%' 5' ., 5' ! %!' ' 2$,)!' ' 5,%!' fI! ' ., 5' %' % ' (%)' 0,)5' %)' A,1' A%)' A%' 0' 5%1!' 8' #$%) ' W $' A$1%) ' '5' %2$ ' 4% ' C' $4(,)'5' 5%1!Z' P ,%' 5' %%. %' !X' ' , ' %' . ,C' A% 5' (% ' BA)'%' *% , ,%)' (%);) ' 1%@' $' %' 4 '') % 'C' 0' A,' A !

B<D>‘ <‘ '<,1#.<$%>‘ C1O+.<?+‘ +1‘ +@>‘ D1B 0<0+‘ ?A . +‘ 1'‘ +@>‘ + B > T

'+>.‘ +@>‘ C1OF#>?+!‘ @>‘ >KC@<0=>D‘ +@>‘ $?@1A. C‘ 1'‘ , %<‘ '1.‘+@>‘ <.C@ >A ?C1A<%‘ ?>>‘1'‘ .<0<D<‘ 1+P J +@?+<0D 0=‘+@>‘ J ?@>?‘ 1'‘+@>‘ ?1,>.> =0?!‘@>‘ .>'#?>D‘ +1‘ <CC>A+‘ <0E‘ 0C.><?>‘ 1'‘ >B1%#B>0+‘ 0‘ +@ ?‘ 0>J‘ <0D‘ B1.>‘ >K<%+>D‘ ?+<+ 10‘ ?‘ .>,>0#>?!‘ 0D>>D!‘ J@ C@‘ <B1#0+>D‘ +1‘ +J1‘ B %% 10?‘ 1'‘ B<.<,>D ?‘ <0M 0#<%%E!‘ J>.>‘ ?1B>J@<+‘ %>??‘ +@<0‘ @>‘ $>'1.>‘ >0"1E>D '‘ @>‘ =.><+>.‘ A<.+‘ 1'‘ +@ ?‘ ?#B‘ @>‘ % $>.<%%E‘ >KA>0D>D‘ 10‘ A#$% C‘ BA.1,>B>0+?‘<0D‘ J1.H?‘1'‘C@<. +EL‘ 1$">C+?‘ J@ C@!‘ +1‘ +@> .‘ C.>D +‘ $>‘ +‘ ?A1H>0!‘ @<,>‘ .<.>%E‘ '< %>D‘ +1‘ >0=<=>‘ <‘ %<.=>‘ ?@<.>‘ 1'‘ +@>‘<++>0+ 10‘<0D‘ .>?1#.C>?‘1'‘+@>‘ =.><+‘ A<0 ?@‘C%>.=E 3

@>‘ ?#$">C+‘ J@ C@‘ A.>??>D‘ B1?+‘ ?>. 1#?%E‘ 10‘ +@>‘ B 0D‘ 1'‘+@>‘ =11D‘ <.C@$?@1A‘ J<?‘ +@>‘ C10,>.? 10‘ 1'

Q‘ 5 %G%‘) ,'$ 5!‘5‘ : %;)%5%‘ ,4!‘A,!‘ (%3!‘ ; J % 1 ‘ 4 ,)‘5‘ , (‘ ,4!‘,!(!FF,! % %. %K‘(3)5)(‘B, A‘ A‘ 2$)‘ 3$4 , A 5‘,)‘ .% , $‘ B @‘ 4$‘ 1 ‘ ((C‘ 3 ; 4%4 C‘ ,)‘ A‘ ,F A‘ . !‘ 0‘ A‘ %‘ (%5‘5‘8, !‘P $!‘F,,,!X‘ ,‘) ‘ (% ($ % 5‘ ‘ %, ‘A, ‘ ; 3$ % ,)!‘ 8, ‘ ‘ % ‘ , ‘ ‘ A%)‘ A 1, , ‘)‘ A‘ ‘ . ‘ 0‘ (13%)C‘ 5%)(,)''‘ %)5‘ A‘ ,@‘A ,) $‘ 00)(! A‘BA ‘ %. $‘ 1 ‘ 0‘A‘ A% 3‘ B%)''‘ 0‘ $, %), 1‘ A%)‘ 0‘A‘ 1%)‘ *% A ,(‘ (A ! $‘4,' C‘,‘) $ % ‘ ' $)5 K‘)‘ BA,(A‘ A‘ 1 ‘ 33 , ‘ (‘1%C‘1 ! ‘ 5 %G%‘) ,'!‘5‘ : %)‘ ,4!‘A,!‘ (!‘ ; J % 1 ‘ ,4!‘ !‘ (%3!‘ FF,!

2$,.%)‘ ‘8 ! ‘5 % ‘ 0‘A‘3)‘5%C‘ %‘ $1‘BA,(A‘ 5 %G%‘ 1%@ ‘5‘2$, ‘%‘A% 5‘ 5$ C‘%((5,)''‘ ‘, ‘1%'), $5 ‘ %‘ A‘ 0,. ‘A$)5 5‘3 $)5‘ 0‘ 3 K‘ %)‘ 0‘ ! i‘ 5 %G%‘ $4,‘ $3 ! J #$,)‘ ($%')%‘5‘ ., 5 ‘ !5,%‘5‘ % %. %! A‘B AC‘% (A4, A 3K‘4 ;) 0%(,)‘)‘ 1‘ ((% ,)‘ B ‘ 0‘ % A ‘%)‘ F % 5,)% C‘ (A% %(‘ Y‘ ,5,)5 ‘ ,1 ‘)% %C‘ 5 %G%‘Y‘$)%‘1)' 2$‘) ‘ 1% (%1, %‘ ‘) 5‘)‘ $)%‘ (% %‘C‘ ‘5)$55‘ %‘ $C%‘C‘ ‘ %‘5, ‘ 5,G,)5‘ ( )‘ %)‘ 5 ‘ ‘)' ‘ ‘),‘3 % %‘ 2$‘5% ‘5 C ‘ ‘2$‘)' ![‘ J) ,'!‘ 5‘ : %)%5%‘ ,4!‘ A,!‘ (!‘ =

+@>' 11.?!' J@1?>' ?A . +#<%' $% 0D0>??' @>' .>=<.D>D' J +@' '>>% 0=?' 1''+>0D>.0>??'<0D' C@<. +E!' ,>.E'D ''>.>0+' '.1B' +@1?>' >0+>.+< 0>D' $E' B1?+' 1'' @ ?' .>,>.>0D' $.>P +@.>0 ' >' A.1A1?>D' +1' <CC1BA% ?@' +@ ?' $E' +@>' B1?+' .<+ 10<%' B>+@1D' A1?? $%>' @1#=@' %<+>' 0' % '>!' @>' ?>+' <$1#+' %><.0 0=' .<$ C!' +@<+' @>' B =@+' C1B B#0 C<+>' J +@' +@>' 11.?' 0' +@> .' 1J0' %<0=#<=>!' <0D' C1BP B<0D>D' @ ?' C%>.=E' +1' D1' +@>' ?<B> T' >' C<#?>D' <0' .<$ C' ,1C<$#%<.E!' =.<B B<.!' <0D' C<+>C@ ?B' +1' $>' C1B A %>DL' <0D'<' ,>.? 10' 0' +@>' ?<B>' +10=#>' +1' $>' B<D>' 1'' +@>' % +#.=E!' C1BA.>@>0D 0=' +@>' ?>%>C+ 10?' '.1B' +@>' 1?A>%?L' <0D' A.1A1?>D' +1' >K+>0D' +@ ?' <+' ?1B>' '#+#.>' + B>' +1' +@>' J@1%>' $1DE' 1'' +@>' C. AP +#.>? Z' @#?' #0?><% 0=' +@>' ?<C.>D' 1.<C%>?!' J@ C@' @<D' $>>0' @ +@>.+1' ?@#+' 1#+' '.1B' +@> .' ? =@+!' @>' 1A>0>D' +1' +@>B' +@>' 10%E' +.#>' ?1#.C>?' 1'' @. ?+ <0' H01J%>D=>'L' <0D' $E'>0D><,1#. 0=' +1' >''>C+' +@> .' C10P ,>.? 10' +@.1#=@&+@>' B>D #B' 1''+@> .' #0D>.?+<0D 0=?!' 0?+><D' 1'' ?>D#C 0=' +@> .' B<= 0<+ 10?' J +@' <' ,< 0' ?@1J' 1'' 1?+>0+<+ 1#?' C>.>B10 >?!' A.1A1?>D' +@>' 10%E' B>+@1D' $E' J@ C@' C10,>.? 10' C1#%D' $>' ? 0C>.>' <0D' A>.B<0>0+

@>?>' J ?>' <0D' $>0>,1%>0+' B><?#.>?' 1'' +@>' =11D' A.>%<+>!' .>C1B B>0D>D!' <?' +@>E' J>.>' $E' +@>' B1?+

N' <.B1%!' %$' ' C<A' KK O' @>?>' +.<C+?' J>.>' A#$%?@>D' 5>D.<G<!' #$' ?#A <' .<0<D<!' 8 8!' 0'+@>' #.1P ' %UC@>.!' ?+!' D>' ; B>0>?!' A>0'@.<C+>.!' $>0=' +@>' '.?+ A' ¯9' O' I#0+<0 %%<!' D<' D>' $11H?' >,>'A.0+>D' 0'+@>' .<$C ; B>0>?!' %$' ' C' O' %,<.' %<0=#<=>' <CC1.D0=' +1' .' <C 1B>C#?!' >' >$' >?+' ; B>M .>!' J@1C+>?' C@0#..>.!' $%' 0!' '1%' 7 O ,>D1!' I#0C#<M .<$C<!' AA' O 4 =>0<?!

>K>B A%<.E A#. +E 1' % '>! <CF# .>D @ B =.><+ <#+@1P . +E <B 10=' +@>' 11.?! J@1! >?+ B<+ 0=' +@>' ,<%#>' 1' +@>' D1C+. 0>' $E' +?' '.# +?! J>.>' J>%% 0C% 0>D' +1' % ?+>0' +1' +! <0D' 0#B $>.?' J>.>' D< %E' <DD>D' +1' +@>' C@#.C@ T

@>' A.1=.>??' 1' A.1?>%E+ ?B ! @1J>,>.! J<?' 0>C>?P ?<. %E' ?%1J' <0D' A< 0'#% <B 10=' <' A>1A%>' .><.>D' '.1B' +@>' C.<D%>! 01+' B>.>%E' 0' <0+ A<+@E' +1! $#+' <$@1.P .>0C>' 1' @. ?+ <0 +E' L' J@1' J>.>' ?>,>.>D' '.1B' +@>' @. ?+ <0' C1B B#0 +E' $E' ?+.10=' D ?? B %<. +E' 1' %<0P =#<=>! @<$ +?! <0D' 0?+ +#+ 10?L' 01J' 0D ??1%#$%E' H0 +' +1=>+@>.' $E' <' C1B B10' ?>0?>' 1' 0<+ 10<% B ?P '1.+#0>' <0E' 1' +@>' B1.>' G><%1#?' C%>.=E' <0D' >% = 1#?' A>.?10?! C10C> , 0=! 0D>>D! +@ ?' $<.. >.' <%+1=>+@>.' 0?#. B1#0+<$%>! J>.>' D>? .1#?' 1' ?>> 0=' +' ?J>A+' <J<E' <+' 10C>' $E' +@>' ?+.10=' <. B' 1' A1J>. ' @>E' .>A.>?>0+>D' +1' +@>' ?1,>.> =0?! +@<+' +' ?>>B>D' % H>' 0?>0? $ % +E' +1' +@>' =11D0>??' 1' 5.1, D>0C>! J@ C@' @<D' D>% ,>.>D' +@>' 0' D>% 0+1' +@> .' @<0D?! +1 '<%%1J' +@>B' <0E' %10=>.' +1' #?#.A' +@>' '< .' 0@>. +<0C>' 1' +@>' @. ?+ <0?! <0D' +@<+' +@>' J@1%>' 1' +@>' ?+ ''0>CH>D' .<C>' 1' <@1B>+' B =@+' "#?+%E' $>' .>F# .>D' +1' ?#$B +' J +@1#+' >KC>A+ 10' +1' 0?+<0+' $<A+ ?B ! 1.' +1' ?>%% +@> .' >?+<+>?' <0D' .>B1,>' +1' '. C< ' @ ?! +@>E' B< 0P +< 0>D! C1#%D' $>' ?C<.C>%E' .>=<.D>D' <0' 0'. 0=>B>0+

c' %>D<! 1.10' D' %1? 1.1?! % $' E! C<A' KK O5>D.<G<! % $' ' C<A' = ! O <.B1%! >$>%! D' 1.' % $' ' C<A' KK ' O' %,<.' 1B>C#?! '1%' 7: UO' Q <C<' %1' F#>' A.>DC<$<! >' A.>DC1' %1 F#>' @G "R ?<E? , >D1' 1' +@>' <.C@$?@1A! $. >%E 8')' <?' '#' B#C@1A.1,>C@1?1'>#+ %'>0'<F#>%M %<' C#D<D A<.<' %<' C10,>.? 10' D' %1? 1.1?R I#0C#<=>0<?!

1’‘ +@>‘ +.><+E!‘ ? 0C>‘ +@>‘ 11.?‘ J1#%D‘ $>‘ ?#C@‘ =.><+‘ =< 0>.?‘ 10‘ +@>‘ ?C1.>‘ 1’‘ +@> .‘ >+>.0<%‘ ?<%,<+ 10‘L‘ +1‘ ?<E‘ 01+@ 0=‘ 1’‘ +@>‘ 0D ?A>0?<$%>0>??‘ 1’‘ ?#C@‘ <‘ B><P ?#.>‘ +1‘ +@>‘ A>.B<0>0+‘ +.<0F# %% +E‘ <0D‘ ?>C#. +E‘ 1’‘ +@>‘H 0=D1B‘ ZT

#+‘ +@>?>‘ C10? D>.<+ 10?!‘ Q"#?+‘ <0D‘ @1%E‘ <?‘ +@>E‘ J>.>!R‘ +1‘ $1..1J‘ +@>‘ J1.D?‘ 1’‘ <‘ D>,1#+‘ A<0 <.D!’‘ ‘< %>D‘ +1‘ C10, 0C>‘ +@>‘ ?1,>.> =0?!‘ J@1‘ .>?1%,>D‘ +1‘ <$ D>‘ $E‘ +@> .‘ .1E<%‘ J1.D!‘ <0D‘ +1‘ +.#?+‘ +1‘ +@>‘ C10P C % <+1.E‘ B><?#.>?‘ 01J‘ 0‘ A.1= >??!‘ <0D‘ <‘ %10=>.‘ <0D‘ B1.>‘ 0+ B<+>‘ 0+>.C1#.?>‘ J +@‘ +@>‘ @. ?+ <0?!‘ <?‘ +@>‘ 10%E‘ %>= + B<+>‘ B><0?‘ ‘1.‘ <CC1BA% ?@ 0=‘ +@> .‘ 1$">C+‘ CC1.D 0=%E!‘ J>‘ ‘ 0D‘ +@>‘ ,<. 1#?‘ A#$% C‘ 1.D 0<0C>?!‘ <?‘ %1J‘ D1J0‘ <?‘ 6::!‘ .>C1=0 ? 0=‘ +@ ?‘ A. 0C A%>!‘ $E‘ +@>‘ .>?A>C+‘ J@ C@‘ +@>E‘ ?@1J‘ ‘1.‘ +@>‘ B1?+‘ +. , <%‘ #?<=>?‘ 1’‘+@>‘ 11.?!’‘ <0D‘ $E‘ +@> .‘?<0CP + 10 0=‘ 01‘ 1+@>.‘ ?+ B#%<0+‘ +1‘ C10,>.? 10‘ +@<0‘ +@>‘ <B>% 1.<+ 10‘ 1’‘+@> .‘C10D + 10 U

B10=‘ +@1?>‘ 0‘ ‘<,1#.‘ 1’‘ B1.>‘ <C+ ,>‘ B><?#.>?‘ J<?‘ ; .<>0>?!‘ <.C@$?@1A‘ 1’‘ 1%>D1‘ <, 0=‘ ‘1%P %1J>D‘ +@>‘ C1#.+‘ +1‘ .<0<D<‘ 0‘ +@>‘ <#+#B0‘ 1’‘ 6::!

‘ % 1 ‘ 4 ,)‘ ,4!‘ ,!‘ C<A‘7

+‘ $D!#$‘?#A.<

"‘ 0‘ +@>‘ A.<=B<+C<‘ D<+>D .<0<D<!‘ C+1$>.‘4 ! 6::!‘A.1P @$+0=‘?%H <AA<.>%‘ 1‘<0E‘ D>P ?C. A+10!‘<0>K<C>A+10‘J<?‘B<D>‘ 0‘ ‘<,1#.‘ 1‘+@>‘ 11.?!‘ J@1?>‘ .1$>?‘J>.>‘#?#<%%E‘1’+@<‘B<+>. <%‘ <B10=‘ +@>‘ J><%+@>.‘ C%<??>?‘ 5.<=B<+C<?D>% >E01L>D‘ 87 !‘ ‘1%‘

f‘ 01+@>.‘%<J!‘ C+1$>.‘ !‘ 6::!‘A.1, D>0 <=< 0?+‘+@>‘ D?P 0@>.+<0C>‘1‘ 11.?@ C@%D.>0 J@1‘@<0>B$.<>0 @.?+<0+E‘ <0D ?>C#.>D‘ B1.>1,>.!‘ +1‘ +@>‘ ‘>B<%‘C10,>.+?‘<A1.+10‘1‘+@>‘ A.1A>.+E‘J@C@‘@<0‘‘>%%>0+1‘+@>‘ ?+<+>‘ 10‘ +@>‘ C10F#>?+‘ 1‘ .<P 0<D<‘ -5.<=B<+C<?D>% >E01!‘ ‘1%‘ 8* %1.>0>‘ @<? .>A1.+>D +@?A.<=B<+C J+@ ?#’C>0‘ 0<CC#.<C‘ ?+!‘ D>‘ %0F#M ?+10!+1B‘ ‘A‘ 6

D * *

@>' +11H' +@>' 1CC<? 10' +1' C1B B#0 C<+>' @ ?' , >J?' +1' <%<,>.<!' +@>' <.C@$?@1A!' .>F#>?+ 0=' %><,>' <+' +@>' ?<B>' + B>' +1' A<.+ C A<+>' J +@' @ B' 0' @ ?' %<$1#.' 1'' %1,>L' +1' J@ C@' +@>' %<++>.!' J %% 0=' +1' ?+.>0=+@>0' @ B?>%'' $E' ?1' >'' C >0+' <0' <%%E!' B1D>?+%E' <??>0+>D' 1,>B$>.' 6Z:: ' >.D 0<0D' <0D' ?<$>%%<' ?110' <'+>.' .>B1,>D' +1' >, %%>L' $#+' $>'1.>' +@> .' D>A<.+#.>' >0P "1 0>D' 10' +@>' A.>%<+>?' +1' 1$?>.,>' +@>' ?<B>' +>BA>.<+>' A1% CE' @ +@>.+1' A#.?#>D!' <0D' +1' $>J<.>' 1'' = , 0=' <0E' 1CC<? 10' '1.' D ?C10+>0+' +1' +@>' 11.?T

1' ?110>.' @<D' +@>&?1,>.> =0?' %>'+' +@>' C +E!' +@<0' ; B>0>?' 0, +>D' ?1B>' 1'' +@>' %><D 0=' (E ' 1.' #??#%B<0' D1C+1.?!' +1' <' C10'>.>0C>!' 0' J@ C@' @>' >KA1#0D>D!' J +@' <%%' +@>' >%1F#>0C>' <+' @ ?' C1B B<0D!' +@>' +.#>' '1#0D<+ 10?' 1'' +@>' @. ?+ <0' '< +@!' <0D' +@>' >..1.?' 1'' +@> .' 1J0L' <0D!' +@<+' @ ?' +><C@ 0=' B =@+' $>' +@>' B1.>' A<%<+<$%>!' >0'1.C>D' +' $E' % $>.<%' A.>?>0+?!' C10? ?+ 0=' B1?+%E' 1''. C@' <0D' C1?+%E' <.+ C%>?' 1'' D.>??!' 1'' J@ C@' +@>' 11.?' J>.>' <+' <%%' + B>?

T' %>D<!' %$', ' C<A' KK O' %,' 1B>C#?!' >' >$#?' >?+' ; B' '1%' 7:' O' I#0<0 %%<!' D<D>' ; B' %$' ' A' 86 O' #B<D>' %<' D<D>% <.D' ?P 0>.1?!'

>.D0<0D' <0D' ?<$>%%<!' <0P C1.D0=+1' >..>.<?!' +11HC1#0?>% 1'' ?#0D.E' %><.0>D' +@>1%1=<0?' <0D''#. ?+?!' J@>+@>.' +@>E' C1#%D' %<J'#%%E' C1BA>%' +@>' <@1B>P +<0?' +1' $>C1B>' @. ?+ <0?!' 01+P J+@?+<0D 0=' +@>' +.><+E' J@C@ =#<.<0+>>D' +@>B' +@>' >K>.C?>' 1'' +@>.' .>%=10' '+>.' .>A><+>D' C10'>.>0C>?' 1'' +@?>.#D+>' $1DE

@' ' %4 ./* ./A' 0':0 45/ 504(< !')' ' D%()'0(*4/!(4 '' *()< ./!0()' ./0 '5(6/4')0 ./ '' R /' /4 .% (:'%6/ ./ !/<)'./' /' (!.())'4 5*/%+' D%')/ ,(%.!()/)4 8'0 /6=!'00/!' '' !/ &()' 5!/4 /))/' ./ ./).!/ /%!0=/)0 /4 ./ 0(!4!' .%!(:< '%6/A' S 04' . 08'&)/' 4!' .' .> /!6 :' 4(6', ' 8' 1PK' %*5 9'0 45/ ./*(' ' /)4/!4')/'.' =:' 45/0/ !/,/!/)' *'0%040 5/ 04(!:' 5(9/,/!' 9')40'' =/44/!',(%*5/!45')' /!< !/!'0

>KC>>D 0=%E' '10D' @ ?' A1% CE' @>' A#.?#>D' '1.' ?1B>'
+ B>!' + %%' +@>' >''>C+' $>C<B>' , ? $%>' @>+@>.' +@>'
A.><C@ 0=' 1.' A.>?>0+?' 1'' +@>' <.C@$?@1A' @<D' B1?+'
J> =@+!' D1>?' 01+' <AA><. T' +' ?' A.1$<$%>!' @1JP
>,>.!&' +@<+' +@>' 11. ?@' D1C+1.?' '1#0D' C10,>.? 10' <'
B#C@' B1.>' A%><?<0+' <0D' A.1' +<$%>' $#? 0>??' +@<0'
+@>E' @<D' <0+ C A<+>D!' '1.' +@>E' 10>' <'+>.' <01+@>.'
D>C%<.>D' +@> .' C10, C+ 10' 1'' +@> .' >..1.?!' <0D' +@> .'
J %% 0=0>??' +1' .>C> ,>' $<A+ ?B' @>' >K<BA%>' 1''
+@>?>' %><.0>D' A>.?10?' J<?' ?110' '1%%1J>D' $E' =.><+'
0#B$>.?' 1'' +@> .' %% +>.<+>' D ?C A%>?!' 0?1B#C@' +@<+'
01' %>??' +@<0' 6 ' <.>' ?< D' +1' @<,>' A.>?>0+>D' +@>BP
?>%,>?' 0' 10>' D<E' '1.' $<A+ ?B'L' <0D' ; B>0>?!' #0<%D>'
+1' <DB 0 ?+>.' +@>' . +>' +1' ><C@' 0D , D#<%%E!' J<?'
1$% =>D' +1' <D1A+' +@>' >KA>D >0+' 1''+@>' ><.%E' @. ?+ <0'
B ?? 10<. >?!' 1'' C@. ?+>0 0=' +@>B' # ' &&# $E' <?P
A>.? 10'L' ?C<++>. 0=' +@>' C10?>C.<+>D' D.1A?' '.1B' <'
B1A!' 1.' @E??1A!' <?' +' J<?' C<%%>D!' J@ C@' @>' +J .%>D'
1,>.' +@>' @><D?' 1''+@>' B#%+ +#D> '

1' '<.' <%%' J>0+' 10' A.1?A>.1#?%E!' <0D' +@>' >%1P
F#>0C>' <0D' %<.=>??>?' 1''+@>' <.C@$?@1A!' J@ C@' %<++>.'
@>' %<, ?@>D' ?1' '.>>%E' <?' +1' >0C#B$>.' @ ?' .>,>0#>?'
'1.' ?>,>.<%' E><.?' +1' C1B>!' $.1#=@+' C.1JD?' 1'' A.1P
?>%E+>?' +1' +@>' @. ?+ <0' '1%D 3L' @>.>' J>.>' ?1B>

T' @>'@10>?!' 1$%>?' <AA><.?
+1'$>'1'+@>'%<++>.'1A0 10' Q' %M
' 0!R?<E?'@>'J +@0<,>+>!'Q'C10
@<%<=1?!'D<D,<?!'E'C<.C<?!'%1?
+.#K1'<'C1010C B>0+1'D>%,>.D<M
D>.1' 1?' 1BA>0D 1!'A'
+' 1$%>?!' 1BA>0D'D>%<' D<
D>' ; B>0'C<A'K, O <.B1%!

>$>%!' % $' ' C<A'KK,'O' %P
,<.' 1B>C#?!' >' >$' >?+'
; B'1%'7: O #B<D>%< D<!

U' 1$%>?!'C<A'K, O I#0+<P
0%%<!' '1%' 88' O' @>' ?1#0D' 1'
$>%%?!' ?1'#0#?#<%+1' <@1B>+<O'
><.?!'A><%0=D<E' <0D0=@+'.1B

' '

OD>>D!' <B 10=' +@>' <@1B>+<O?!' J@1' .>=<.D>D' +@>?>' A.1C>>D O=?' <?' 0,1%, O=' <' , 1%<+ 10!' '' O1+' 1'' +@>' %>++>.!' <+' %><?+' 1'' +@>' ?A . +' 1'' +@>' 1. = O<%' +.><+E' 1''C<A +#%<+ 10L' J@ C@' ?>>B>D' O+>OD>D' +1' A.1, D>!' O1+' 10%E' <=< O?+' +@>' >BA%1EB>O+' 1'' '1.C>!' $#+' 1'' <OE' #OD#>' OC>O+ ,>' +1' C10,>.? 10 T' >,>.<%' 1''+@>' B1.>' ?+#.DE!' OC%#D O=' ?1B>' 1'' +@>' A. OC A<%' C + P G>O?!' >K>.+>D' <%%' +@> .' >''1.+?' +1' ?+<E' +@>' + D>' 1'' D>'>C+ 10!' J@ C@' +@.><+>O>D' ?110' +1' ?J<%%1J' #A' +@>' J@1%>' A1A#%<+ 10' 1'' +@>' C +E' #+' ; B>O>?!' J@1?>' G><%' @<D' O1J' B1#O+>D' #A' +1' '>,>.' @><+' O' +@>' >KC +>B>O+' 1''?#CC>??!' J<?' O1+' +1' $>' C11%>D' $E' <OE' 1AA1? + 10!' @1J>,>.' '1. B D<$%>L' <OD' '' @>' @<D' @ +@>.+1' .>?A>C+>D' +@>' %>++>.' 1'' +@>' +.><+E!' @>' O1J' ?@1J>D' @ B?>%'' A.>A<.>D' +1' +.<BA%>' 10' %>++>.' <OD' ?A . +' OD ''>.>O+%E!' J@>O' +@>E' C.1??>D' @ ?' D>? =O?

B 10=' +@1?>' B1?+' <C+ ,>' O' +@>' 1AA1? + 10' J<?' <' O1$%>' 11.' O<B>D' V>=. !' J>%%' ?H %%>D' O' +@>' %><.O O=!' 1'' @ ?' C1#O+.EB>O!' J +@' J@1B' @>' @<D' =.><+' C10M

+@>' O>J%E' C10?>C.<+>D' B1?F#>?!' =<O>D' ; B>O>?' +@>' <AA>%%<+ 10' 1"6 * 9" ' > # ' '.1B' +@>' .<O<D O>?' #B<D>' %<' D<!

T' <.B1%!' >$>%!' D>' %1?' 1.' %$' ' C<A' : ;

<H>' '1.'>K<BA%>' +@>' '1%%1JP O=' A.1, ? 10?' O' +@>' +.><+E' : ' I#>' ?' <%=#O' 1.1' +#, >.>' <%=#O<' .>O><D<' A1.' B#=>.!' O1' ?>.<' <A.>B <D<' <' ?>.' @. ?+ <O<' C10+.<' ?# ,1%#O+<D!' ?O1' F#>' ?>.U' O+>..1=<D<' >O' A.>?>OC<' D>

% . ?+ <O1?' E' D>' 1.1?!' E' ?>' ?=#.D' ?# ,1%#O+<D!' E' %1' B>?M B1' ?>' >O+>OD>.<' C1O' %1?' O O1?' E' O O<?' O<C D1?' D>' @. ?+ <O<' E' 1.1' I#>' O O=#O' 1.1' O' 1P .<' ?>.<O<A.>B <D1?' <' ?>.' @. ?M + <O1?' C10+.<' ?# ,1%#O+<D!' E' F#>' ?' <%=#O<' D10C>%%<!' ' C<?<M D<!' ' , #D<!' A1.' .<G1O' D>' <%=#M O1?' <B1.>?' ?>' F#?>.>' +1B<.' @. ?+ <O<!' +<BA1C1' ?>.D' .>C>M $D<!@<?+<' ?>.' O+>..1=<D<R!' @>' J@1%>' +.><+E' ?' = ,>O' ' #<!# & ' $E' <.B1%!' <OD' $E' O1' 1+@>.' <#P +@1.' +@<+' ' @<,>' ?>>O

‘ * E ‘ ‘ 8 ‘ ! &

? D>.<+ 10‘ ; B>0>?!‘ @<, 0=‘>K@<#?+>D‘<%%‘ @ ?‘ #?#<%‘ <.+ %%>.E‘ 1’‘<.=#B>0+?‘ <0D‘ A.>?>0+?‘ 10‘ +@ ?‘ 1$D#.<+>‘ 0’ D>%!‘ @<D‘ @ B‘ +<H>0‘ 0+1‘ C#?+1DE‘ $E‘ 10>‘ 1’‘ @ ?‘ 1’’ C>.?‘ 0<B>D‘ >10!‘ Q <‘ % 10!R‘ ?<E?‘ <‘ A#00 0=‘ @ ?P +1. <0!‘ Q‘$E‘ 0<+#.>‘ <?‘ J>%%‘ <?‘ 0<B>!RT‘ <0D‘ C1BP B<0D>D‘ +@>‘ %<++>.‘ +1‘ +<H>‘ ?#C@‘ B><?#.>?‘ J +@‘ @ ?‘ A. ?10>.‘ <?‘ J1#%D‘ C%><.‘ +@>‘ ’ %B‘ ’.1B‘ @ ?‘ >E>?‘ @ ?‘ ’< +@’#%‘ ’#0C+ 10<.E‘ >K>C#+>D‘ @ ?‘ 1.D>.?‘ ?1‘ >’P ’>C+#<%%E‘ +@<+!‘ <’+>.‘ <‘ ’>J‘ D<E?‘ 1’‘ ’<?+ 0=!‘ ’>++>.?!‘ <0D‘ BA. ?10B>0+!‘ @>‘ J<?‘ <$%>‘+1‘ A.>?>0+‘ @ ?‘ C@<.=>‘ +1‘ @ ?‘ >BA%1E>.!‘ A>0 +>0+‘ +1‘ <%%‘ 1#+J<.D‘ <AA><.<0C>!‘ <0D‘ J +@‘ <‘ @#B$%>‘ B >0‘ ?+.10=%E‘ C10+.<?+ 0=‘ J +@‘ ?‘ ’1.B>.‘ A.1#D‘ <0D‘ %1’+E‘ $><. 0=‘ ’+>.‘ +@>‘ B1?+‘ .>?A>C+’#%‘ 1$> ?<0C>‘ +1‘ +@>‘ <.C@$?@1A!‘ V>=.‘ 0’:.BM‘ >D‘ @ B‘ +@<+‘ Q‘@>‘ @<D‘ @<D‘ <‘ .>,>%<+ 10‘ ’.1B‘ %%<@‘ 10‘ +@>‘ A.>C>D 0=‘ 0 =@+!‘ J@1‘ @<D‘ C10D>?C>0D>D‘+1‘ ?@1J‘ @ B‘ +@>‘ >..1.‘ 1’‘ @ ?‘ J<E?!‘ <0D‘ C1B B<0D>D‘ @ B‘ +1‘ .>C> ,>‘ 0?+<0+‘ $<A+ ?B‘ <+‘ +@>‘ ?<B>‘+ B>‘ A1 0+ 0=‘ +1‘ @ ?‘ =<1%>.!‘ @>‘ Q‘"1C#%<.%ER‘ .>B<.H>D!&N 1#.‘.>,>.>0C>‘@<?‘10%E‘+1‘+#.0‘+@ ?‘ ‘ 1’E1#.?‘ %11?>‘<B10=‘+@>‘A>1A%>!‘ <0D!‘.<E‘ J1.D‘ ’1.‘ +!‘ +@>.>‘ J %%‘ 01+‘ $>‘ <‘ #??#%B<0‘ %>’+‘ B<0E‘ D<E?‘ J +@ 0‘ +@>‘ J<%%?‘ 1’‘ .<0<D< R"& Q‘ @#?!R‘ >KC%< B?‘ +@>‘ D>,1#+‘ >..>.<?!‘ Q‘ D D‘ 5.1, D>0C>‘ <,< %‘ +?>%’‘ 1’

N‘ %,‘ 1B>C#?!‘ >‘ >$‘ >?+‘; B>0 !‘%$!‘ ’1%‘7:

‘ 1$%>?!C<A‘K , O ,#0<D‘ %<‘ D<!‘ O %,‘ 1B>C#?!‘ >‘ >$‘ >?+‘; B‘ ’1%‘ O‘ <.B1%!‘%$’‘C<A‘KK,

V>=.‘<??#B>D‘+@>‘ $<A+?B<% 0<B>1"+@>‘ .><‘ <A+<0! 10M G<%1‘ >.0<0D>G! J@1?>‘A.1J>?? @>‘@<D‘><A>. >0C>D‘0‘<A>.?10<% .>0C10+.>‘ 0‘ +@>‘ ,>=<‘ 1" .<P 0<D<‘ <.B1%!‘#$’?#A O #B<‘ D>‘%<‘ D<!

‘ ‘

+@>' D<.HO>??' 1'' +@>' D#O=>1O' +1' A1#.' 1O' +@>' $>P O =@+>D' B OD' 1'' +@>' O' D>%' +@>' % =@+' 1'' +@>' +.#>' '< +@'.T

@>' J1.H' 1'' A.1?>%E+ ?.<' O1J' J>O+' 1O' <A<C>L' '1.' +>..1.' J<?' <DD>D' +1' +@>' 1+@>.' ?+ B#%<O+?' @>' G><%1#?' A.1A<=<OD ?+!' O' +@>' B><O' J@ %>!' '%#?@>D' J +@' ?#CC>??!' .>?1%,>D' O1+' 1O%E' +1' >K+>.B O<+>' O' D>% +E' '.1B' +@>' $1?1B' 1'' +@>' #O$>% >,>.!' $#+' +@>' ,>.E' C@<.<C+>.?' O' J@ C@' +?' +><C@ O=?' J>.>' .>C1.D>D' >' <CC1.D O=%E' C<#?>D' <%%' +@>' .<$ C' B<O#?C. A+?' J@ C@' @>' C1#%D' A.1C#.>' +1' $>' @><A>D' +1=>+@>.' O' <' C1B B1O' A %>' O' 1O>' 1'' +@>' =.><+' ?F#<.>?' 1'' +@>' C +E' @>' %<.=>?+' A<.+' J>.>' C1A >?' 1'' +@>' S1.<O!' 1.' J1.H?' O' ?1B>' J<E' 1.' 1+@>.' C1OO>C+>D' J +@' +@>1%1=EL' +1=>+@>.' J +@' B<OE' 1+@>.?!' @1J>,>.!' 1O' ,<. 1#?' ?C >O+ ' C' ?#$">C+?' @>E' J>.>' $><#+ '#%%E' >K>C#+>D!' '1.' +@>' B1?+' A<.+!' <?' +1' +@> .' C@ .1=.<A@E!' <OD' ?#BA+#1#?%E' $1#OD' <OD' D>C1.<+>D' L' '1.' O' <%%' .>P %<+ O=' +1' +@>' B>C@<O C<%' ' O ?@!' +@>' A<O ?@' .<$?' >KC>%%>D' >,>.E' A>1A%>' O' #.1A>' #+' O> +@>.' ?A%>OML' D1#.' 1'' 1#+J<.D' =<.O +#.>!' O1.' O+. O? C' B>. +' 1'' C1BA1? + 1O!' C1#%D' <+1O>' '1.' +@>' +< O+' 1'' @>.>?E' O' +@>' >E>' 1'' +@>' ?+>.O' OF# ? +1.' L' @>' .>?>.,>D' +@.>>' @#OD.>D' J1.H?!' OD>>D!' .>%<+ O=' +1' B>D C<%' ?C >OC>!' O' J@ C@' +@>' 11.?' J>.>' <?' A.>>B O>O+' O' +@<+' D<E' <?' +@>' #.1A><O?' J>.>' D>' C >O+!' '1.' @ ?' #O P ,>.? +E' 1'' %C<%<L' $#+' <%%' +@>' .>?+!'' <B1#O+ O=' +1

C' ?+' D ?A<=O>!' +1B' , ' D X' <OD' +@>' #B<D>' %<' D<!' ! 6 <' +1' 1OD>!' - % #M ' ((5,)'' ' 4 ' P3>' 4,) ' 3!' D') X' I <'

B<0E +@1#?<0D?! @> C10? =0>D +1 0D ?C. B 0<+> C10'%<=.<+ 10 ZT

@ ?' B>%<0C@1%E' <#+1MD<M' ! + J %%$>' .>C1%%>C+>D!' J<?' C>%>$.<+>D!' 01+' $E' <0' #0%>++>.>D' $<.$<. <0!' $#+' $E' <' C#%+ ,<+>D' A.>%<+>!' J@1' J<?' <+' +@<+' ,>.E' + B>' <C+ ,>%E' >B A%1E 0=' @ ?' %<.=>' .>,>0#>?' 0' +@>' A#$% P C<+ 10' 1'' +@>' B 1?+' ?+#A>0D1#?' % +>.<.E' J1.H' 1'' +@>' <=>!' <0D' 0' +@>' >0D1 J B>0+' 1'' +@>' B 1?+' %><.0>D' #0 P ,>.? +E' 0' A< 0 '' +' +11H' A%<C>!' 01+' 0' +@>' D<.HP 0>??' 1'' +@>' B DD%>' <=>?!' $#+' 0' +@>' D<J0' 1'' +@>' ? K+>>0+@' C>0+#.E!' <0D' 0' +@>' B D?+' 1'' <0' >0% =@+P >0>D' 0<+ 10!' D>>A%E' 0D>$+>D' '1.' +?' 1J0' A.1=.>??' +1' +@>?>' ,>.E' ?+1.>?' 1'' .<$ <0' J ?D1B ' +' '1.B?' <' C1#0+>.A<.+' +1' +@>' B A#+>D' ?<C. %>=>' 1'' B<.! 3L

1B>G <0D 1+@.?! 8! ' @>.>' <.>' ?C<.C>%E' <0E' D<+<' '1.' <.P . , 0=<+A.1$<$%+E' 0+@? B10P ?+.1#? D?C.>A<0CE' @>' '<B1#? %$.<.E' 1''+@>' BB <D>? <+' 1.P D1,<' J<?' ?<D+1'C10+<0' ! ' ,1%#B>?' +' @<D' %10=?0C>$%>0 D?? A<+>D' <0D' 01' ? B%<.' C1%P %C+ 10' @<D' $%>0' <+>BA+>D' 0' .<0<D<!' J@>.>' %<.0 0=' J<? O>,>.' 0' +@<+' A<%BE' ?+<+>' J%@C@ +' .<C@>D' #0D>.' +@>' 1.D1,<0' DE0<?+E' + %%!' @1J>,>.!' %<.0P >D' B>0' J>.>' +1' $>' '1#0D' +@>.>!' <0D+@>' 11. ?@B>+.1A1%?J1#%D 0<+#.<%E' $>' +@>' D>A1? + 1''?#C@ %+>.<.E'+.<?#.>?<?' @<D'>?C<A>D +@>' =>0.<%?@AJ.>CH 1'' + B>' <0D' <CC D>0+' 0' +@>' J@1%>! +@>' >?+ B<+>' 1'' 1B>G J1#%D <AA<.' B#C@ +11'?B<%%!' <0D' +@<+ 1'' 1$%>? <? D?A.1A1.+10<+>%E' >K<=>.<+>D!' >'0D>!' $>+>.' 0P

$(5',)' %4,(' A%)'%)C' 0,,'3 5'(1%C'4'0 $)5' 3 A%3 ' A ' % ' BA ' A ' 4 ' %$ A , C!

%,' 1B>C#?!' >' >$' >?+' ; B'%$' '1%' O <.M B1%!' %$' ' C<A' KK, O 1$%>?!' 1BA>0D 1!' C<A'K , O #B<D>' %<' D<!' O I#0+<0%%<!' D<' D>' ; B'A'84

+' >+' +@>' <.C@$?@1A' B =@+' 0D' ?1B>' C1#0+>0<0C>' '1.' @?' '<0<+C?B!' 0' +@>' B1?+' A1%+>' C<A+<%' 1'' #.1A>' @>' '<C#%+E' 1'' +@>1%1=E' 0' 5<.?!' ?1B>' '>J' E><.?' %<+>.!' D>C%<.>D' W F#>' >><0' ><+' '<+' D>' %<' .>% =10!' ?' 10' A>.B>++<+' >+#D>' D# .>C'>+' D>' >$.>#ZR' %.?!' >'1.B<+10' D>' #+@>.!' A%' 6!' 01+>

/ $$%10?<.=#B>0+!' '' +D1>?' 01+?@<+>' +@>' '1#0D<+10?1''+@>

> =@+ C>0+#. >? $>'1.>! <0D ?@1J? +@<+ $ =1+.E ? +@>? ?<B>? 0 >,>.E '< +@ <0D >,>.E <=>

@>? B ?C@ >' 1CC<? 10>D $E +@ ? <C+! '<.? '.1B? $> 0=? % B +>D +1 +@>? B B>D <+>? %1??! C10+ 0#>D +1 $>? '>%+ ?+ %%? B1.>? ?>,>.>%E 0 +? C10?>F#>0C>?' #C@ <? C1#%D! ?>C.>+>D +@>? B<0#?C. A+? 0 +@> .? A1??>?? 10 + %%? <0 1AA1.+#0 +E 1CC#..>D '1.? C10,>E 0=? +@>B 1#+ 1' +@>? C1#0+.EL <0D B<0E +@1#?<0D? 0 +@ ? J<E J>.>? A. ,<+>%E ?@ AA>D 1,>.? +1 <.$<.E T @#? .<$ <0 % +>.<+#.>? $>C<B>? .<.>? 0 +@>? % $.<. >? 1' +@>? ,>.E C1#0+.E +1 J@ C@? +? J<? 0D =>01#? L <0D .<$ C ?C@1%<.?@ A! 10C>? ?1? '%1#. ?@ 0=? 0 A< 0! <0D +@<+ +11 0 '<.? %>?? A1% ?@>D <=>?! =.<D#<%%E '>%% 0+1 D>C<E '.1B J<0+ 1'<% B>0+ +1 ?#?+< 0 + #C@ J>.>? j+@>? B>%<0C@1%E .>?#%+? 1' +@ ? % +>.<.E A>.?>P C#+ 10 L B1.>? B ?C@ >,1#?! 0 10>? , >J! +@<0 >,>0 +@<+ D .>C+>D <=< 0?+ % '>L '1.? +@>? %1?? 1' <0 0D P , D#<% J %% ?C<.C>%E $>? '>%+ $>E10D @ ? 1J0 =>0>P .<+ 10! J@ %>? +@>? <00 @ %<+ 10 1'<, ,<%#<$%>? J1.H! 1.! 0 1+@>.? J1.D?! 1' B 0D +?>%' >B$1D >D 0 <? A>.P B<0>0+ '1.B! ? <? %1??+1 <%% '#+#.>?+ B>

@>? @ =@ @<0D J +@ J@ C@ ; B>0>? 01J C<.. >D B><?#.>?! >KC +>D ?>. 1#? <%<.B 0 B<0E 1'+@>? B1.>? D ?C.>>+ <0D +>BA>.<+>? <?+ % <0? 0 +@>? C +E @>E

BA T 0 A F%)5 ,%)(%, ,)' ((,) 0 ( )0 %' %,) 1%C % % %, !4)',)'' %),)5,.,5$% %)% $ % (3,(, 1 % A BA,(A A %B,)' ', BA,; 3)5 5 %1 $) %)5 .% $ 0 A A C A%5 4) (C A B @ 5 C 5 4 $'A 4C A , (0 1 L A %) 5 : %)%5,) 3%,)!Z *)5 1,)%(,) 3 ; 0 ,(%)$ BA 1,' % 5 G ' %)5 *% , , ,4 , A! %4! %0 A 0% 0 A (%3, %) ; 8, 3! 1! ,! 3! /

$>?1#=@+ @ B +1 #?> =.><+>.' '1.$><.<0C>! .>B10P
?+.<+ 0= <=< 0?+ @ ?' 1$, 1#?' , 1%<+ 10?' 1'' +@>' +.><+E'
<?' J>%%' <?' <=< 0?+' +@>' >KA>D >0CE' 1'' '1.C>D' C10,>.P
? 10?!' J@ C@' C1#%D' 01+!' 0' +@>' 0<+#.>' 1'' +@ 0=?!' $>'
%<?+ 0= ' #+' +@>' A>.+ 0<C 1#?' A.>%<+>' 10%E' .>A% >D!'
+@<+' Q' <' +<B>.' A1% CE' B =@+!' 0D>>D!' ?# +' +>BA1.<%'
B<++>.?!' $#+' 01+' +@1?>' 0' J@ C@' +@>' 0+>.>?+?' 1''+@>'
?1#%' J>.>' <+' ?+<H>L' +@<+' +@>' #0$>% >,>.!' ''@>' C1#%D'
01+' $>' D.<J0!' ?@1#%D' $>' D. ,>0' 0+1' +@>' J<E' 1'' ?<%P
,<+ 10' L' <0D' +@<+' +' J<?' 01' + B>' +1' ?+<E' +@>' @<0D!'
J@>0' +@>' .# 0?' 1'' <@1B>+<0 ?B&J>.>' +1++>. 0=' +1'
+@> .' '1#0D<+ 10? R' >' <CC1.D 0=%E' J>0+' 10' J +@'
#0'% 0C@ 0=' .>?1%#+ 10 T

#+' +@>' A<+ >0C>' 1'' +@>' 11.?' +@>B?>%,>?!' J@ C@'
@<D' @>%D' 1#+' ?1' B<.,>%%1#?%E' #0D>.' +@ ?' ?E?+>B' 1''
1AA.>?? 10!' $>=<0' 01J' +1' $>' >K@<#?+>D' <0E' ?=0?'
1'' +@ ?' B =@+' $>' D ?C>.0>D' $E' B#C@' %>??' <C#+>' 1A+ C?'
+@<0' +@1?>' 1'' +@>' <.C@$?@1AL' $#+' @ ?' J>.>' $% 0D>D'
$E' +@>' <..1=<0C>' 1'' ?#CC>?? ' +' %>0=+@!' 0' +@ ?' 0P
'%<B B<$%>' ?+<+>' 1''A#$% C' '>>% 0=!' <0' 0C D>0+' 1CC#..>D'
J@ C@' %>D' +1' <' =>0>.<%' >KA%1? 10

@.>>' 1'' ; B>0>? ?' ?>.,<0+?' J>.>' ?>0+' 10' ?1B>'
$#? 0>??' +1' +@>' %$<EC 0!' <' F#<.+>.' 0@<$ +>D' >KC%#P
? ,>%E' $E' 11.?!' <0D' >0C1BA<??>D' $E' J<%%?!' J@ C@'
?>A<.<+>D' +' '.1B' +@>' >?+' 1''+@>' C +E '' @>?>' B>0'
@<D' B<D>' +@>B?>%,>?' A>C#% <.%E' 1D 1#?' +1' +@>' A>1A%>'
$E' +@> .' <C+ , +E' 0' +@> .' B<?+>. ?' ?>., C>' ' D ?A#+>'
@<, 0=' <. ?>0' $>+J>>0' +@>B' <0D' ?1B>' 0@<$ +<0+?' 1'

F' ,'!' (6/*%0' (' ' 4' '0 ' =' !' 08' 4(6'
- ='!*'' /.KKK'*'8'K' ' 8' 320O$/.!'C'' = *'K

+@>' F#<.+>.!' C<B>' <+' %<?+'+1' $%1J?!' J@>0'+J1'1''+@>' ?>.,<0+?' J>.>' B<??<C.>D'10'+@>'?A1+!' <0D'+@> .'C1BP .<D>' >?C<A>D' J +@' D '' C#%+E' '.1B' +@>' 0'#. <+>D' B1$ T' @>' <''< .' 1A>.<+>D' <?'+@>' ? =0<%' '1.' 0?#.P .>C+ 10' @>' 0@<$ +<0+?'1''+@>'D ?+ C+'.<0'+1'<.B?!' =1+' A1??>?? 10' 1''+@>' =<+>?!' $<.. C<D>D'+@>' ?+.>>+?!' <0D' 0'<'>J' @1#.?'+@>' J@1%>' %$<EC 0' J<?' 0' .>$>%M' % 10 '

0'+@>'C1#.?>'1''+@>'1%%1J 0='0 =@+!' <'%<.=>'0#BP $>.'1''+@>'>0.<=>D'A1A#%<C>'B<D>'+@> .' J<E' 0+1'+@>' C +E'+1'+@>'F#<.+>.?'1''; B>0>?!' J +@'+@>'A#.A1?>'1''+<H 0='?#B B<.E',>0=><0C>'10'@?'@><D'1.'<%%'@?' A>.?>C#+ 10?' 1.+#0<+>%E!'@?' A<%<C>' J<?' ?+.10=!' <0D' D>'>0D>D'$E'0#B>.1#?' .>?1%#+>'<0D' J>%%M<.B>D' <++>0D<0+?' @>' %<++>.!' <'+@>' <AA.1<C@' 1''+@>' .1+>.?!' BA%1.>D'+@> .' B<?+>.'+1'B<H>'@?'>?C<A>!' ''A1?? $%>!'+1'+@>'1.+.>??'1''+@>' %@<B$.<!' J@>.>'+@>' 1#0+'D>' >0D %%<' J<?'>?+<$%?@>D' #+'+@>' 0+.>A D' A.>%<+>!' J@1'@>%D'%'>'+11'C@><A'+1'$>'<'C1J<.D!'>KP C%<B>D!'Q' 1D'1.$D' '?@1#%D'+@0H'1''BE'1JO' ?<'>+E!' J@>0'?1'B<0E'1''+@>'1'<+@'#%'<.>'A>.%%0=' +@> .?Z 1!' 'J %%'?+<0D'+1'BE'A1?+!'<0D'J<+'+@>.>!' ''><,>0'J %%?'+!'+@>'C.1JO'1''B<.+E.D1B R[' +' B#?+'$>'C10'>??>D'@>'J>%%'D>?>.,>D'+

L' .!':1(,$'0 ! .!':1(,$',4!,,!0 ! !J$ A'%'1'5,(3%)(,' %1'4'5'',(') ',13 %)'A B .'4 B)' ,4!,!(%3!FF.,!Z A')% %,.'0':1G%)5'A' k'4 'E,5%'C''%G%)'5' A'%$A ,, !':1G'(); =,1!(%3!F,.!JT %,%)%' 1! ,5 ,)''A,'$)(11)'33 $; ,,!,4!FF.,,!(%3!.!J'#$,)%;),,'0',)0 1%,)',' B A'),%'E,5%'5'=,1)'3!6! A 1'% ! >T !' % C' 3$' 3, %!' $1%'5' %'E,5%' !J 3!((F,,,

@>' $# %D 0=!' @1J>,>.!' A.1,>D' +11' ?+.10=' '1.' +@>' #+B1?+' >''1.+?' 1''+@>' B1$!' <0D' <+' %>0=+@!' <'+>.' ?1B>' @1#.?' 1'' <J'#%' ?#?A>0?>' <0D' <= +<+ 10' +1' +@>' $>P %><=#>.>D' 0B<+>?!' +@>' 1#0+'D>' >0D %%<' <. . ,>D' 0' A>.?10' <+' +@>' @><D' 1'' @ ?' =#<.D?!' <0D' ?#CC>>D>D' 0' D ?A>.? 0=' +@>' 0?#.=>0+?' <0D' D. , 0=' +@>B' $<CH' +1' +@> .' 1J0' F#<.+>.?' #+' 01' >K>.+ 10?' C1#%D' .>?+1.>' 1.D>.' +1' +@>' +#B#%+#1#?' A1A#%<C>!' 1.' 0D#C>' +@>B' +1' % ?+>0' +1' +>. B?L' <0D' +@>E' >,>0' ?+10>D' +@>' B>??>0=>.' C@<.=>D' J +@' A<C ' C' A.1A1?<%?' '.1B' +@>' 1#0+' D>' >0D %%<' @>E'1.=<0 G>D' +@>B?>%,>?' #0D>.' %><D>.?!' A.1, D>D' +@>B?>%,>?' J +@' <.B?!' <0D' +11H' >,>.E' A1?P ? $%>' B><0?' '1.' B< 0+< 0 0=' +@> .' D>'>0C>' +' ?>>BP >D' <?' '!' ?B ++>0' J +@' +@>' .>C1%%>C+ 10?' 1'' <0C >0+' % $>.+E!' +@>E' J>.>' .>?1%,>D' +1' .>C1,>.' +' <=< 0' <+' <%%' @<G<.D? T

+' %>0=+@!' <'+>.' +@ ?' D ?1.D>.%E' ?+<+>' 1''+@ 0=?' @<D' %<?+>D' '1.' ?>,>.<%' D<E?!' <%<,>.<!' +@>' .C@$?@1A' 1'' .<0<D<!' .>?1%,>D' +1' +.E' +@>' >''>C+' 1'' @ ?' A>.?10<%' 0'%#>0C>!' @ +@>.+1' ?1' =.><+' J +@' +@>' 11.?!' $E' , ? +P 0=' @ B?>%''+@>' D ?<''>C+>D' F#<.+>.' @ ?' 01$%>' A#.P A1?>' @>' A#+' 0' >K>C#+ 10!' 0' ?A +>' 1''+@>' B1?+' ><.@>?+' .>B10?+.<0C>?' 1''@ ?' '. >0D?' >' J<?' <++>0D>D' 10%E' $E' @ ?' C@<A%< 0!' $><. 0=' +@>' C.#C ' K' $>'1.>' @ B!' <0D' <' '>J' 1'' @ ?' D1B>?+ C?!' 10' '11+' <0D' #0<.B>D' % H>' @ B?>%'' +' +@>' ? =@+' 1''+@> .' ,>0>.<$%>' A<?+1.!' J +@' @ ?' C1#0+>0<0C>' $><B 0=' J +@' +@>' ?<B>' ?>.>0>' <0D' $>0 =0' >KA.>?? 10' J +@' J@ C@' +@>E' J>.>' '<B % <.

Q' % ,%)%' $4,' ?#A J 5%')5 G%' :$ %' 5' : %)%5%' *),(%' ,4!' .!' (%3!' FF,,,! J' 3!' !

J@>0 % ?+>0 0= +1 @ ? >K@1.+<+ 10? '.1B +@> A#%A +! +@> A<?? 10? 1 ' +@> B#%+ +#D> J>.> ?+ %%>D , >.EP 10> ?>>B>D J %% 0= +1 <$<0D10 @ B?>%' +1 +@> +>0D>. .>C1%%>C+ 10? 1 ' +@> A<?+L <0D +@> ? BA%> A>1A%> C.1JD>D <.1#0D +@> =11D B<0! H0>>% 0= D1J0! <0D H ?? 0= +@> @>B 1 ' @ ? .1$>! <? ' +1 BA%1.> @ ? $>0>D C+ 10 @> 1#0+D> >0D %%<01 ?110>.%><.0>D +@> ??#>! +@<0 @> '1%%1J>D 0+1 +@> %$<EC 0! <+P +>0D>D $E<@<0D'#% 1 '?1%D >.? @>0 @> @<D .><C@P >D +@> A%<C> J@>.> +@> B1$ J<? =<+@>.>D! @> +@.>J @ ? $100>+ 0+1 +@> B D?+ 1 ' +@>B ! 0 +1H>0 1 ' @ ? A<C ' C 0+>0+ 10? @> <C+ 10 J<? .>C> ,>D J +@ <CC%<B<+ 10?L <0D +@> A>1A%>! J@1?> '>>% 0=? @<D 01J +<H>0 <01+@>. D .>C+ 10! .>C<%%>D $E @ ? A.>?>0C> +1 +@> .>C1%%>C+ 10 1 ' @ ?#0 '1.B%E B %D <0D >F# +<$%> .#%>! +.><+>D @ B J +@ ? B %<. .>?A>C+ +1 +@<+ ?@1J0 +@> .C@$?@1A 1 ' .<0<D< T

@>?> +J1 0D , D#<%? +11H <D,<0+<=> 1 ' +@ ? '<P ,1#.<$%> C@<0=> 1 ' '>>% 0= +1 >KA1?+#%<+> J +@ +@> 11.? 10 +@> '1%%E <0D D>?A>.<+ 10 1 ' +@> . C10D#C+! J@ C@ B#?+ 0,1%,> +@>B 0 <? +.#==%> J +@ ?#C@ 1,>.J@>%B 0= 1DD? <? +@<+ 1 ' +@> J@1% M A<0 ?@ B10<.C@E @>E BA%1.>D +@>B +1 %<E D1J0 +@> . <.B? <0D .>+#.0 +1 +@> . D#+EL 0 J@ C@ >,>0+ +@>E A%>D=>D +@>B ?>%,>?! <? '<. <? 0 +@> . A1J>.! +1 <%%1J 01 '#.+@>. .>A>+ + 10 1 ' +@> =. >,<0C>? C1BP A%< 0>D 1'! <0D +1 0+>.C>D> '1. +@> . A<.D10 J +@ +@> ?1,>.> =0? @> C1#0+ +>?+ ' >D @ ? ? 0C>. +E $E

L %)) ,4!,! (%3! FF.,! J! ((F,,! J #$,) %), %3! 6 ! J ! % C 3! 3, %! 3! 5% $4, $3 %!

%><, 0=ʻ @ ?ʻ J 'ʻ<0Dʻ+J1ʻC@ %D.>0ʻ <?ʻ @1?+<=>?ʻ ʻ+@>ʻ @><.+ʻ 1'ʻ+@>ʻ %$<EC 0Lʻ <0ʻ <C+ʻ J@ C@ʻ B#?+ʻ $>ʻ <DP B ++>Dʻ+1ʻ BA%Eʻ#0$1#0D>Dʻ C10' D>0C>ʻ 0ʻ+@>ʻ 0+>P =. +Eʻ1'ʻ+@>ʻ 11.? Tʻ @>?>ʻ ,<. 1#?ʻ B><?#.>?!ʻ $<CHP >D!ʻ B1.>1,>.!ʻ $Eʻ+@>ʻC1#0?>%?ʻ <0Dʻ<#+@1. +Eʻ1'ʻ?1B>ʻ 1'ʻ+@>ʻ C@ >'ʻ %'<F# ?!ʻ @<Dʻ+@>ʻ>''>C+ʻ+1ʻ.>?+1.>ʻ+.<0P F# %% +Eʻ<B10=ʻ +@>ʻ A>1A%>!ʻ J@1!ʻ %<E 0=ʻ <? D>ʻ +@> .ʻ @1?+ %>ʻ A.>A<.<+ 10?!ʻ .>+#.0>Dʻ 10C>ʻ B1.>ʻ +1ʻ +@> .ʻ .>=#%<.ʻ>B A%1EB>0+? '

@>ʻ .#B1#.ʻ 1'ʻ+@>ʻ 0?#..>C+ 10!ʻ 0ʻ+@>ʻ B><0ʻ J@ %>!ʻ JD+@ʻ+@>ʻ #?#<%ʻ >K<==>.<+ 10!ʻ .><C@>Dʻ >, %%>!ʻ J@>.>ʻ+@>ʻ C1#.+ʻ J<?ʻ+@>0ʻ .>? D 0=ʻ 0ʻ 10>ʻ.>?A>C+ʻ .#B1#.ʻ D Dʻ"#?+ C>!ʻ $Eʻ BA#+ 0=ʻ+@>ʻ J@1%>ʻ$%<B>ʻ1'ʻ +@>ʻ<''< .ʻ+1ʻ+@>ʻ 0+>BA>.<+>ʻ G><%ʻ1'ʻ ; .<>0>?ʻ @<+ʻ A>.?10<=>!ʻ J +@ʻ @ ?ʻ #?#<%ʻA.1BA+0>??!ʻ @<Dʻ?>0+ʻ><.%Eʻ 01+ C>ʻ 1'ʻ+@>ʻ <''< .ʻ+1ʻ+@>ʻ F#>>0ʻ $Eʻ <ʻ 0>=.1ʻ ?%<,>ʻ #0C1B B10%Eʻ '%>>+ʻ 1'ʻ '11+Lʻ $#+ʻ+@>ʻ '>%%1Jʻ @<Dʻ $>P C1B>ʻ 0+1K C<+>Dʻ $Eʻ+@>ʻ J<E!ʻ <0Dʻ+@>ʻC1#.+ʻ J>.>ʻ ?>,>.<%ʻ D<E?ʻ J +@1#+ʻ <0Eʻ B1.>ʻ <#+@>0+ Cʻ + D 0=?ʻ +@<0ʻ =>0>.<%ʻ .>A1.+ʻ @>ʻH 0=!ʻ J@1ʻ<%J<E?ʻ.>=<.DP >Dʻ ; B>0>?ʻ?ʻ >%>,<+ 10ʻ+1ʻ+@>ʻA. B<CE!ʻ+1ʻ+@>ʻA.>P "#D C>!ʻ <?ʻ+@>ʻ.><D>.ʻB<Eʻ.>B>B$>.!ʻ1'ʻ@ ?ʻ1J0ʻ?10!ʻ J +@ʻ D ??<+ ?'<C+ 10!ʻ C1#%Dʻ 01+ʻ 01Jʻ .>?+.<0ʻ @ ?ʻ 0P D =0<+ 10!ʻ $#+ʻ J<?ʻ @><.Dʻ+1ʻ>KC%< Bʻ +<#0+ 0=%Eʻ+1ʻ +@>ʻ F#>>0!ʻ Qʻ 1ʻ J>ʻ <.>ʻ % H>ʻ+1ʻ A<Eʻ D><.ʻ'1.ʻE1#.

Qʻ % 1 ʻ (!(,!J)5 G%ʻ B ʻB%),)'ʻ ʻ1%@ʻ%ʻ' 5ʻ :$ %ʻ5ʻ:%)%5%ʻ,4!,!3! ! *A, ,%)Zʻ ʻ4, ʻ%(%1ʻA,ʻ A%ʻ$(Aʻ()0,5)(ʻB%ʻ+$;)ʻA,ʻ B)ʻ($) C1)- >ʻ ,0, 5ʻ1%Cʻ4ʻ,)0 5ʻ0 1ʻ%ʻ 5%G%ʻ,4!,,,!(%3!F! (11)ʻ %C,)'ʻ 0ʻ (A4, A 3ʻ]ʻ ! % Cʻ 3$ʻ 3, ! 3! %.%ʻZʻA% , AʻB @ʻ ((F,,!J 5%ʻ (!(, J %1 ʻ %)5ʻ3%), Aʻ0%, Aʻ B ʻ%ʻ A% $4,ʻ $3%!

<.C@$?@1A! J@1?>' .<?@O>?? @<? %1?+' #?' O' <' '>J' @1#.?' J@<+' J>' @<,>' $>>O' E><.?' O' <CF# . 0= RT

@>' F#>>O!' C1O'1#OD>D' <+' +@>' + D 0=?!' <OD' #O<$%>' +1' C1BA.>@>OD' +@>' ? %>OC>' 1'' ; B>O>?!' O?+<O+%E' J.1+>' +1' @ B' O' +@>' ?>,>.>?+' +>.B?!' D>B<OD 0=' <O' >KA%<O<+ 1O' 1'' +@>' J@1%>' A.1C>>D 0=' >' <.C@P $?@1A' O1J' ?<J' @ ?' >..1.' O' C1B B ++ 0=' <''< .?' 1'' B1B>O+' +1' ?#C@' @<OD?' <?' +@1?>' 1'' @ ?' ?<$%>' B>?P ?>O=>.'L' <OD' +@>' %>??1O' ?+11D' @ B' O' =11D' ?+><D!' <CC1.D 0=' +1' @ ?' B1.<% ? 0=' $ 1=.<A@>.!' '1.' +@>' .>P B< OD>.' 1'' @ ?' % '> '' >' @<?+>O>D' +1' .>A< .' @ ?' '<#%+' $E' A.1C>>D O=' +1' >, %%>' O' A>.?1O' <OD' A.>P ?>O+ 0=' @ B?>%'' $>'1.>' +@>' ?1,>.> =O?' >' D>+< %>D' +1' +@>B' +@>' @ ?+1.E' 1'' <%%' +@>' A<?+' +.<O?<C+ 1O?L' .>C<A +#%<+>D' @ ?' B<O '1%D' ?>., C>?!' +@>' <.=#B>O+?' <OD' >K@1.+<+ 1O?' @>' @<D' #?>D!' +@>' %<.=>' ?#B?' @>' @<D' >KA>OD>D!' <OD' @ ?' ,<. 1#?' >KA>D >O+?!' O' ?@1.+!' '1.' >''>C+ 0=' C1O,>.? 1O!' $>'1.>' .>?1.+ 0=' +1' ?>,>. +E' >' $1%D%E' <??#B>D' +@>' .>?A1O? $ % +E' 1'' +@>' J@1%>' A.1C>>D 0=!' <CHO1J%>D= 0=' +@<+' @>' @<D' A#.A1?>%E' <,1 D>D' C1BB#O C<+ 0=' @ ?' A%<O?' +1' +@>' ?1,>.> =O?' '1.' '><.' 1''X1AA1? + 1O ' '' @>' @<D' >..>D!' @>' ?< D!' +' C1#%D' $>' BA#+>D' +1' O1' 1+@>.' B1+ ,>!' <+' J1.?+!' +@<O' +11' =.><+' G><%' '1.' +@>' O+>.>?+?' 1'' .>% = 1O' L' $#+' @>' C1OC%#D>D' J +@' <??#. 0=' +@>BT+@<+' +@>' A.>?>O+' A1P ? + 1O' 1''<''< .?' J<?' +@>' $>?+' A1?? $%>' '1.' +@> .' A#.P A1?>?!' ? OC>' +@>' %<+>' C1OD#C+' 1''+@>' 11.?' O,1%,>D

L' %,%)%' 1!',,!',4!FF.,,!' .!' : 1 (,$' 4$' (%3!E!J 4 ' (%3!F,.!J $>' : !=,1)!0 ! J 4 ' 1%'5 ' %'E,5%' ! E,5%'C'8%G%)%'5 '=,1!(%3!F,.!

+@>B 0 +@> =# %+! <0D C10?>F#>0+%E <%% +@> A>0<%+ >? 1 '+.><?10! <0D +@<+ + J1#%D $> <0 <C+ 1 'C%>B>0CE +1 1 '>. A<.D10 10 +@> <%+>.0<+ ,>? 1 'C10,>.? 10 1.>K %>Z T

@> <.C@$?@1A ?D ?C1#.?>! ' J> <.> +1 C.>D + @ ? >0+@#? <?+ C $ 1=.<A@>.! J@1 .>%<+>? +@> 0+>., >J! 01+ 10%E D ?A>%%>D +@> C%1#D? 1 '.1E<% 0D =0<+ 10! $#+ D.>J '1.+@ +@> B1?+ >BA@<+ C >KA.>?? 10? 1 '<AA.1$<+ 10 ' 1J '<. >.D 0<0D <0D ?<$>%%< J>.> B1,>D +1 +@ ? $E @ ? ' 0<% .>C1B B>0D<+ 10! 1. J@<+! 0 A.1'>?? 10<% %<0=#<=>! B<E $> C<%%>D +@> Q BP A.1,>B>0+ 1 '@ ? D ?C1#.?>!R D1>? 01+ <AA><. @>E D D 01+ <+ <0E .<+> <D1A+ + 0 +? % +>.<% >K+>0+ 0 D#> + B>! @1J>,>.! C1B B ?? 10>.? J>.> ?>0+ +1 .<P 0<D<! '#%%E <#+@1. G>D +1 0F# .> 0+1 +@> %<+> D ?P +#.$<0C>? <0D A#0 ?@ +@> .=# %+E <#+@1.? 0 +@> C1#.?> 1 ' +@> 0,>?+ =<+ 10! B<0E! 0C%#D 0= ?1B> 1 ' +@> A. 0C A<% C + G>0?! J>.> BA. ?10>D 10 ?#?P A C 10 @> =.><+>. A<.+ B<D> +@> . A><C> $E >BP $.<C 0= @. ?+ <0 +E L B<0E 1+@>.? ?1%D +@> . >?+<+>? <0D B =.<+>D +1 <.$<.EL <0D +@> .>B< 0D>. 1 ' +@> A1A#%<+ 10! J@>+@>. '.1B '><. 1 ' A#0 ?@B>0+! 1. C10+<= 10 1 ' >K<BA%>! <$"#.>D +@> . <0C >0+ ?#P A>.?+ + 10 <0D C10?>0+>D +1 .>C> ,> $<A+ ?B @> J@1%> 0#B$>. 1 ' C10,>.+? J<? >?+ B<+>D <+ <$1#+ 8 ! ! J@1?> '#+#.> .>%<A?>? A.1B ?>D <0 <%B1?+ 0>K@<#?+ $%> ?#AA%E '1. +@> ' >.E %<$1#.? 1 ' +@> 0F# ? + 10 .1B +@ ? A>. 1D +@> 0<B> 1 ' 11.?!

N : 1 (,$ $4,?#A.<

 ! : 1 (,$ 0 ! !J $1% 5 %E,5%! !

J@ C@ @<D =.<D#<%%E ?#A>.?>D>D +@> A. B + ,> 10> 1'' A<0 ?@ .<$?! =<,> J<E +1 +@> + +%> 1'' 1. ?M C1>?! $E J@ C@ +@ ?# #0'1.+#0<+> A>1A%> C10+ 0#>D +1 $> H01J0 +@.1#=@ +@> .>B< 0D>.' 1'' +@> .' A.1P +.<C+>D >K ?+>0C> 0 +@> A>0 0?#%< T

@> C .C#B?+<0C>?# #0D>.' J@ C@ +@ ?# BA1.+<0+ .>,1%#+ 10 0 .>% = 10 J<?# >''>C+>D 0 +@> J@1%> A1A#%<+ 10 1'' +@ ?# =.><+ C +E! J %% >KC +> 10%E '>>%P 0=?# 1''D ?=#?+ <+ +@> A.>?>0+ D<E! B 0=%>D! 0D>>D! J +@ C1BA<?? 10 '1.' d@> #0@<AAE $> 0=?# J@1 ?1 @>>D%>??%E 0C#..>D +@> @><,E % <$ % + >?# <++<C@>D +1 +@> .' 0>J''< +@ ,>.E A<0 <.D! D1#$+%>??! <0P + C A<+>D +@> A1% + C<% <D,<0+<=>?# % H>%E +1 .>?#%+ a'.1B <' B><?#.> J@ C@ D ,>?+>D +@> 11.?# 1'' +@> A>C#% <.' B B#0 + >?# ?>C#.>D $E +@> +.><+E 1'' C<A P +#%<+ 10! <0D ?#$">C+>D +@>B <+ 10C> +1 +@> %<J 1'' +@> %<0D ' +' ?# >F#<%%E C>.+< 0! @1J>,>.! +@<+ +@>E <++<C@>D =.><+ ,<%#> 0 <' ?A . +#<% , >J +1 +@> B>.> ?@1J 1'' C10,>.? 10! A%<C 0= BA% C + C10P ' D>0C> 0 +@> A#. 'E 0= 0'%#>0C> 1'' +@> J<+>.?# 1'' $<A+ ?B! +1 J@1B>,>.' <0D #0D>.' J@<+>,>.' C .C#BP ?+<0C>?# <DB 0 ?+>.>D ,>0 +@> A@ %1?1A@ C <.+E.! <?# % ++%> + 0C+#.>D J +@ $ =1+.E <?# <0E 1''+@> + B>! +>?+ ' >?# @ ?# "1E <+ +@> C10,>.? 10! 10 +@> =.1#0D

L 5% ,4! .! (%3! FF,,,! J % ' % ! 1! ,! ,4! ,! (%3! % ,%)% 8, ! 1!,,! ,4! FF.,,! F,! J *% 4%+%)% ! %,, (%3! E! J ! % C 3$ 3, > 6 ! J *$ % 5 % %(, ! 3! ((F ! J % 1 > ! (%3! (,F! J A % %$ A 4 ,) 5 , (,4! ,! (% , A)$14 0 ( ). (%3! FF.,,! J .% ! : 1 (,$,) : %)%5% %)5 ,) .,) ,4! ,,! 0 ! J %)$G%)> / !

+@<+! <%+@1#=@ + B =@+ 01+ A>0>+.<+> $>0><+@ +@> C.#?+ 1' 0' D>% +E J@ C@ @<D '1.B>D 1,>.' +@> B 0D 1' +@> 1%D>.' <0D 1' C1#.?> 0,>+>.<+> #??#%B<0! E>+ + J1#%D @<,> '#%% >''>C+ 10 @ ? A1?+>. +E! ?#$P ">C+>D '.1B +@> C.<D%> +1 +@> ?><.C@ 0= 1A>.<+ 10 1' @. ?+ <0 D ?C A% 0> T

+@ .>=<.D +1 ; B>0>?! +@> .><% <#+@1.' 1' +@> J1.H! J@<+>,>.' D1#$+? J>.> >0+>.+< 0>D 1'@ ? D ?P C.>+ 10 0 +@> 1#+?>+! +@>E J>.> C1BA%>+>%E D ?A>%%>D $E +@> .>?#%+? %% C10C#..>D 0 <DB . 0= +@> 0P , 0C $%> >0>.=E 1' +@> B<0 J@1! 0 +@> '<C> 1' ?#C@ B =@+E 1$?+<C%>?! @<D ?1 ?A>>D %E >''>C+>D +@ ? B1B>0+1#? .>,1%#+ 10 0 +@> '< +@ 1' < A>1A%> $.>D '.1B C@ %D@11D 0 +@> D><D% >?+ @1?+ % +E T+1 @. ?+ <0 +E L' <0D +@> =11D .C@$?@1A <%<,>.< J<? @><.D 0 +@> '#%0>?? 1' @ ? @><.+ +1 >KC%< B! +@<+ Q ; B>0>? @<D <C@ >,>D =.><+>.' +. #BA@? +@<0

L $. ,)2$, 7KA %C ,) % A *% 5,)% 0 %) % * $G :'A, 5 1 ,) $$1 %A 1 1 .,.) %),1, % > 2$,5+$ 1 , $ 3,(%)5$1 ! $ $1)%12$ 1%+ $1 ,) , $ % ,)2$ <% %1) ' F, ,1 ( ) $ $1 3,1%0$> , ,3 $1 %51, 3 $> % % 3%$ % ,1)%12$) .5 $> 3 .),) 5+ (,3,)%+$.)$1 %) ,)0%) $1 % 2$ 4 $> ,,,) 3 $1 ,)%),4$, , $> 3 , ,),4$ %4 % ,) .,,1> 4$) $, ,4$! ( ) ( ) ,> 4$ 2$,(% , %),1, ,)5$ $ > $) 4%$5 ' 2$,5 1 ,5 0$ $> $1,)0,(, ![3!((F.!

Z %')% 5 ,)(3 [%C : 1 G MM %3$5 1) .) %> ,), =,1),$ (3, J 4 3$ 1) , % (, .,5 2$T1 ( ) A 1,) (5 4% $ 2$ 5 %)(,3, ,) 2$ 3 %)5 ( )0, 1% 8 4% 4% % (,., % %5> A$($$1 %A$1 $1 3, %) %) %%),1,( )) ,) $ *A , , 5 (,)%1%13 ( ) $ %4 > %. % 00 (%!Z P 4$: ! =,1),, 0 ! / A 3%) 'C ,(0 A 3%),% 5 ,); 5 5 4C (A, P3! H X BA ,) A %' 0 $, = E! 5, 3 %C % A 4,' C 0 A% 0 5,)%)5%)5 %4 %!

5 ‘

‘ ‘ ‘ 5 ; O ‘ ‘ ‘ ‘
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8 <O 8 7!

$ & ‘<''<' ?% J>0+‘+1.J<.D‘?1‘+. #BA@<0+%E‘ 0‘+@>‘ C<A +<%‘ 1'‘ .<0<D<!‘ +@>E‘ >KC +>D‘ =>0>.<%‘ D ?C10+>0+‘ 0‘ 1+@>.‘ A<.+?‘ 1'‘+@<+‘ H 0=D1B!‘ ?A>C <%%E‘+@>‘ J %D‘ .>= 10?‘ 1'‘+@>‘ %A#K<..<?‘ @ ?‘ .<0=>‘ 1'‘B<.+B>‘ %A?!‘ J@C@‘ ?+.>+C@>?‘ +1‘ +@>‘ D ?+<0C>‘ 1'‘ ?>,>0+>>0‘ %><=#>?‘ 0‘ <‘ ?1#+@M><?+>.%E‘D .>C+ 10‘ '.1B‘+@>‘ 11.P ?@‘C<A +<%!‘?>0D 0=‘1#+‘ +?‘?>..<?‘%H>‘?1‘B<0E‘$.1<D‘ <..<?‘+1J<.D?‘+@>‘ >D +>..<0><0!‘J<?‘+@ CH%E‘?A. 0P H%>D‘J +@‘ 11. ?@‘, %%<=>?!‘C.>?+ 0=‘+@>‘$<%D‘?#BB +?‘ 1'‘+@>‘B1#0+< 0?!‘1.‘C@>F#>. 0=‘+@>‘=.>>0‘?%1A>?‘<0D‘ ,<%%>E?‘J@C@‘%<E‘$>+J>>0‘+@>B‘ +?‘?BA%>‘ 0@<$ +P <0+?!‘ %1CH>D‘#A‘J +@ 0‘+@>‘%10>%E‘.>C>??>?‘1'‘+@> .‘ @ %%?!‘ <0D‘ <CC#?+1B>D‘+1‘ <‘ %'>‘1'‘A>0#.E‘<0D‘+1 %!‘ @<D‘>?C<A>D‘+@>‘C1..#A+ 10?!‘ <?‘J>%%‘<?‘.>' 0>B>0+?!‘ 1'‘C , %G<+ 10‘ 0‘ <0C>0+‘+B>?‘+@>E‘<''1.D>D‘<‘ @<.DE‘B %+<‘ '1.‘+@>‘A. 0C>?‘1'‘ .<0<D<!‘ <0D‘+@>E‘ 01J‘>K@ $ +>D‘ <0‘ #0?@<H>0‘ <++<C@B>0+‘+1‘+@> .‘<0P C>0+‘ 0?+ +#+ 10?‘<0D‘.>% = 10!‘J@C@‘@<D‘$>>0‘?1B>M‘ ,1‘ ‘ ‘ & '‘ %

J@<+ >''<C>D 0 +@> =.><+M C + >? $E B1.>& 0+ B<+>
0+>.C1#.?> J +@ +@> #.1A><0? T

@>?> J<.% H> B1#0+< 0>>.? $>@>%D J +@ =<+@>.P
0= .>?>0+B>0+ +@> '< +@%>?? C10D#C+ A#.?#>D +1P
J<.D? +@> .C1#0+.EB>0! J@ C@! +@>E @<D =11D .><P
?10 +1 '><.! J1#%D ?110 $> >K+>0D>D +1 +@>B?>%,>? L
<0D +@> . ' >.E A<?? 10? J>.> 0'%<B>D +1 <0 #0=1P
,>.0<$%> @> =@+ $E +@> A#$% C <A1?+<?E 1'' .<0<D<
@>E <+ %>0=+@ .>?1%,>D +1 <0+ C A<+> <0E ? B %<.
<++>B A+ 10 +@>B?>%,>? $E < =>0>.<% 0?#..>C+ 10
@>E <CC1.D 0=%E ?> G>D 10 +@> '1.+.>??>? <0D ?+.10=
A<??>? +@.1#=@1#+ +@> C1#0+.E! <0D $>=<0 <? #?#<%
J +@ '1.<E? 0+1 +@> %<0D? 1'' +@> @. ?+ <0?

@>?> $1%D <C+? >KC +>D B#C@ <%<.B 0 +@> C<A P
+<%! <0D& +@> 1#0+ D> >0D %%< +11H , =1.1#? B><M
?'% .>? (E " +@> .>$>%% 10 0 +? $.+@ 10M
?<%,1 D> 1.D1,<! @ ? ><.%E A#A %! $#+ J@1 B =@+
01J J>%% $> @ ? B<?+>. 0 +@> <.+ 1'' J<.! J<? <+
+@<+ + B> .>? D 0=' 0 .<0<D< L <0D >0D %%< <,< %>D
@ B?>%''1''@ ? <?? ?+<0C> +1 >0'1.C> <@<?+E B#?+>.1''
%>, >?! <0D B<.C@ <+ 10C> <=< 0?+ +@> >0>BE

? ' .?+ B1,>B>0+ J<? <=< 0?+ #>"<.!&< '1.+ ' >D
+1J0 ? +#<+>D 0 10> 1''+@> ><?+>.0 .<0=>? 1''+@> %M

L 3$F% % %) %4,(B 5
,'),0C,)'' Y %)5 0 B% , [
%((5,)'' % %G% P)% 2$,%
5 3%,,% 1!,,! 3! IX< %(;
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P %5 5 \$4,) 3! ¤
8 % 3\$F% % %2\$ %
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' \$ 1\$ A 5 %4 %G 0' C
. A \$5 ( ) !

A#K<..<?!‘ J@1?>‘ 0@<$ +<0+?‘ @<D‘ +<H>0‘ +@>‘ %><D‘ 0‘ +@>‘ 0?#..>C+ 10‘ @>‘ >0+>.A. ?>‘ J<?‘ <++>0D>D‘ J +@‘ B1.>‘ D '' C#%+E‘ +@<0‘ J<?‘ >KA>C+>D‘ Q‘ 1D?‘ >0>B >?!R‘ +1‘ $1..1J‘ +@>‘ C@<. +<$%>‘ >A +@>+‘ 1'‘ +@>‘ <?+ % <0‘ C@.10 C%>.?!‘ @<D‘ A%1#=@>D‘ #A‘ +@>‘ %<0D?‘ 0‘ +@>‘ 0> =@P $1#.@11D!‘ <0D‘ <?‘ +@>‘ % =@+‘ C<,<%.E‘ 1'‘ +@>‘ A<0 <.D?‘ J<?‘ J1.H 0=‘ +?‘ J<E‘ +@.1#=@‘ +@>‘ D>>A‘ '#..1J?!‘ +@>‘ 11.?‘ 1A>0>D‘ +@>‘ C.F<%?‘ J@ C@‘ 0+>.?>C+>D‘ +@>‘ ' >%D?!‘ <0D‘ 0‘ <‘ B1B>0+‘ +@>‘ @1.?>?‘ J>.>‘ '%1#0D>. 0=‘ #A‘ +1‘ +@> .‘= .+@?‘ 0‘ +@>‘ B .>‘ <0D‘ J<+>. ‘ @#?‘ >B$<..<??>D‘ 0‘ +@> .‘ A.1=.>??!‘ +@>‘ A<0 <.D?‘ A.>?>0+>D‘ <‘ '<+<%‘ B<.H‘ +1‘ +@>‘ 11. ?@‘ B ?? %>?!‘ J@ C@‘ .< 0>D‘ 10‘ +@>B‘ J +@‘ A + %>??‘ '#.E!‘ <0D‘ +‘ J<?‘ 01+‘ J +@1#+‘ =.><+‘ >'P '1.+?‘ <0D‘ C10? D>.<$%>‘ %1??!‘ +@<+‘ +@>E‘ =< 0>D‘ <‘ ' TB‘ %<0D 0=‘ 10‘ +@>‘ 1AA1? +>‘ ? D>‘ 0D ?B<E>D!‘ @1JP >,>.!‘ +@>E‘ +@>0‘ C@<.=>D‘ +@>‘ >0>BE‘ J +@‘ ?#C@‘ , ,<P C +E‘ <?‘ C1BA>%%>D‘ @ B‘ +1‘ = ,>‘ J<E‘ <0D‘ +<H>‘ .>'#=>‘ J +@ 0‘ +@>‘ D>'>0C>?‘ 1'‘ +@>‘ +1J0

1‘ BA>D B>0+‘ C1#%D‘ 01J‘ C@>CH‘ +@>‘ <.D1#.‘ 1'‘ +@>‘ <??< %<0+?‘ @>E‘ +@.>J‘ +@>B?>%,>?‘ '.1B‘ +@> .‘ @1.?>?!‘ <0D‘ $. 0= 0='T'1.J<.D‘ +@>‘ ?C<% 0=‘ %<DD>.?!‘ A%<0+>D‘ +@>B‘ <=< 0?+‘ +@>‘ J<%%?‘ 10?<%,1‘ J<?‘ +@>‘ ' .?+‘ +1‘ =< 0‘ +@>‘ ?#B B +L‘ <0D‘ <?‘ <‘ A1J>.'#%‘ 11.‘ >0D><,1#.>D‘ +1‘ +@.#?+‘ @ B‘ '.1B‘ +@>‘ +1AB1?+‘ .1#0D!‘ 1'‘ +@>‘ %<DD>.!‘ @>‘ =.<?A>D‘ +@>‘ $<++%>B>0+?‘ ' .B%E‘ J +@‘ @ ?‘ %>'+‘ @<0D!‘ <0D‘ D><%+‘ +@>‘ 0' D>%‘ ?#C@‘ <‘ $%1J‘ J +@‘ +@>‘ ?J1.D‘ 0‘ @ ?‘ . =@+‘ <?‘ $.1#=@+‘ @ B‘ @><D%10=‘ +1‘ +@>‘ =.1#0D‘ >‘ +@>0‘ %><A+‘ 0+1‘ +@>‘ A%<C>!‘ <0D‘ J<?‘ ?A>>D %E‘ '1%%1J>D‘ $E‘ @ ?‘ +.11A?‘ @>‘ >0>BE‘ B<D>‘ <‘ $. >'‘ <0D‘ 0>''>C+#<%‘ .>? ?+<0C>L‘ +@>‘ =.><+>.‘ A<.+

J>.>‘ A#+‘ +1‘ +@>‘ ?J1.D‘ L‘ +@>‘ .>B< 0D>.!‘ 0C%#D 0=‘ +@>‘ J1B>0‘ <0D‘ C@ %D.>0!‘ J>.>‘ B<D>‘ ?%<,>?!‘ <0D‘ +@>‘ +1J0‘ J<?‘ D>% ,>.>D‘ #A‘ +1‘ A %%<=> T

@>‘ ?>,>. +E‘ 1‘‘ +@ ?‘ B % +<.E‘ >K>C#+ 10‘ @<D‘ 01+‘ +@>‘ >‘‘>C+‘ 1‘‘ 0+ B D<+ 0=‘ +@>‘ 0?#.=>0+?‘ L‘ <0D‘ +@>‘ .>,1%+‘ J1.>‘ ?1‘ ?>. 1#?‘ <0‘ <?A>C+!‘ +@<+‘ S 0=‘ >.D P 0<0D‘ ‘1#0D‘ +‘ 0>C>??<.E‘+1‘ +<H>‘ +@>‘ ‘ >%D‘ 0‘ A>.?10!‘ J@ C@‘ @>‘ D D‘ <+‘ +@>‘ @><D‘ 1‘‘<?‘ C1BA%>+>‘ <0D‘ $><#+ P ‘#%‘ <‘ $1DE‘1‘‘ <?+ % <0‘ C@ ,<%.E‘ <?‘ >,>.‘ =.<C>D‘ +@>‘ C<BA< =0?‘ 1‘‘ .<0<D< &%& I # ++ 0=‘ %@>0D 0!‘ +@>‘ A%<C>‘ 1‘‘ .>0D>G,1#?!‘ 0‘ +@>‘ %<++>.‘ >0D‘ 1‘‘ >$.#<.E‘ 8 !‘ @>‘ D .>C+>D‘ @ ?‘ B<.C@‘ 10‘ <0"<.10!‘ 10>‘ 1‘‘+@>‘ +1J0?‘ B1?+‘ <C+ ,>‘ 0‘ +@>‘ .>,1%+!‘ <0D‘ A>.C@>D‘ @ =@‘ <B10=‘ +@>‘ 0<CC>?? $%>‘ ‘<?+0>??>?‘ 1‘‘+@>‘ ? >..<!‘ ?1#+@P ><?+‘ 1‘‘ .<0<D<

@>‘ 0@<$ +<0+?!‘ +.#?+ 0=‘ +1‘ +@>‘ 0<+#.<‘ ?+.>0=+@‘ 1‘‘ <‘ ? +#<+ 10‘ J@ C@‘ @<D‘ 10C>‘ $<‘‘%>D‘ +@>‘ <..<?‘ 1‘‘ +@>‘ $1%D‘ 11. ?@‘ C@ >‘‘ %‘ V<=<%!‘ +11H‘ 01‘ A.>C<#+ 10?‘ +1‘ ?>C#.>‘ +@>‘ A<??>?‘ >.D 0<0D!‘ .>%E 0=‘ 10‘ +@ ?!‘ <,1 D>D‘ +@>‘ B1.>‘ D .>C+‘ <,>0#>‘ +1‘ +@>‘ A%<C>!‘ <0D‘ $. 0= 0=‘ @ ?‘ B>0‘ $E‘ <‘ C .C# +1#?‘ .1#+>‘ 1,>.‘ D<0P =>.1#?‘ .<, 0>?!‘ <0D‘ D<.H‘ <0D‘ D GGE‘ A.>C A C>?!‘ J@>.>‘ +@>‘ ‘11+‘ 1‘‘ +@>‘ @#0+>.‘ @<D‘ ?>%D1B‘ ,>0+#.>D!‘ ?#CM

L‘ % 1 ‘ 4)‘ 5 ‘ >‘ ‘ 0‘B ‘ % ‘ ‘4 , . ‘ % C ‘ N E‘ 1!‘ ,!‘ ^,4!‘ ,!‘ (%3!‘ FF.,,,!‘ A ‘ C%‘ 0 (‘ %1 $) 5‘ ‘ J #$,) %)%‘ E,5% ‘ 1!‘ ,!‘ 3!‘ I ‘ 0 ‘ %)5‘ ^6 ‘ A ‘ 0‘ J‘ 5%‘ *),(%‘ 5‘ ‘ ‘ % ‘ ‘ %)‘ % 1C‘ ‘ 3 13 C‘ ‘ ,4!‘ .!‘ (%3!‘ FF,,,! J ‘ %4 $'A‘ ,) ‘ A‘ 0, 5‘ B $5‘)% 5 G!‘ 8, ‘5‘ ‘ C ‘ *% !‘ $'' ‘ A,'A‘ ,5 %‘ 0‘ A‘ ; !‘ (%3!‘ (,F! J 4% (%‘ C ‘ $ (‘ 0‘ A‘)% ,)4 ‘A,'A‘ 5‘ %')‘ 1!‘ ,,!‘ 0 !‘ I!‘ ,)5 5‘ ‘ '%,)‘ (5, ‘ .)‘0 1‘ J)5 G%‘ :$ %‘5‘ : %)%5% % C ‘ B, A $‘ ( )0, 1%,)! 3!‘ ?

C>>D>D‘ <+‘ %>0=+@!‘ <'+>.‘ 0C.>D $%>‘ +1 %‘ <0D‘ @<G<.D!‘ 0‘ .><C@ 0=‘ <0‘ >%>,<+>D‘ A1 0+!‘ J@ C@‘ >0+ .>%E‘ C1BP B<0D>D‘ +@>‘ 11. ?@‘ '1.+.>??

.><+‘ J<?‘ +@>‘ D ?B<E‘ 1'‘ +@>‘ 0?#.=>0+?‘ <+‘ +@>‘ <AA<. + 10‘ 1'‘ +@>‘ @. ?+ <0‘ $<00>.?!‘ ?+.><B 0=‘ 0‘ +. #BA@‘ 0‘ +@>‘ #AA>.‘ < .!‘ '.1B‘ +@>‘ ,>.E‘A 00<C%>?‘ 1'‘ +@>‘ ? >..<‘ @>E‘ ?+1#+%E‘ A>.? ?+>D!‘ @1J>,>.!‘ 0‘ +@>‘ .>'#?<%‘ +1‘ ?#..>0D>.L‘ $#+‘ +@> .‘ J1.H?‘ J>.>‘ +11‘ '>>$%>‘ +1‘ ?+<0D‘ +@>‘ <??<#%+‘ 1'‘ B>0‘ J@1‘ @<D‘ ,<0P F# ?@>D‘ +@>‘ B1.>‘ '1.B D<$%>‘ 1$?+<C%>?‘ 1'‘ 0<+#.>L‘ <0D!‘ <'+>.‘ <‘ ?@1.+‘ ?+.#==%>!‘ +@>‘ A%<C>‘ J<?‘ C<.. >D‘ $E‘ ?+1.B!‘ <.C@‘ 4+@!‘ 8 !‘ <0D‘ +?‘ J.>+C@>D‘ 0B<+>?‘ >KA>. >0C>D‘ +@>‘ ?<B>‘ D.><D'#%‘ '<+>‘ J +@‘ +@1?>‘ 1'‘ #>"<. T

+‘ 0><.%E‘ +@>‘ ?<B>‘ + B>!‘ +@>‘ 1#0+‘ D>‘ >. 0‘ +11H‘ ?>,>.<%‘ 1+@>.‘ '1.+ ' >D‘ A%<C>?‘ 0‘ +@>‘ %A#K<..<?!‘ 0‘ 10>‘ 1'‘ J@ C@‘ @>‘ $%>J‘ #A‘ <‘ B1?F#>‘ ' %%>D‘ J +@‘ J1B>0‘ <0D‘ C@ %D.>0‘ 1?+ % + >?‘ J>.>‘ C<.. >D‘ 10‘ J +@‘ <%%‘ +@>‘ '>.1C +E‘ 1'‘ <‘ C ,%"& 1.‘ .<+@>.‘ ?>., %>‘ J<.‘ L‘ <0D‘ +@>‘ A<0 <.D?!‘ .>A#D <+ 0=‘ <%%‘ +@>‘ '>>% 0=?‘ 1'‘ C1#.+>?E‘ <0D‘ =>0>.1? +E!‘ J@ C@‘ +@>E‘ @<D‘ 10C>‘ ?@1JO‘ +1‘ +@>‘ ?<B>‘ B>0‘ J@>0‘ D><% 0=‘ J +@‘ +@>B‘ <?‘ @1P 01#.<$%>‘ >0>B >?!‘ 01J‘ .>=<.D>D‘ +@>B‘ 10%E‘ <?‘ .>$>%P % 1#?‘ ,<??<%?!‘ 1.‘ 0D>>D‘ ?%<,>?!‘ J@1B‘ +@>‘ A#$% C‘ ?<'>+E‘ .>F# .>D‘ +1‘ $>‘ 01+‘ B>.>%E‘ C@<?+ ?>D!‘ $#+‘ >KP +>.B 0<+>D

@>?>‘ ?>,>. + >?!‘ <DD>D‘ +1‘ +@>‘ C10, C+ 10‘ 1'‘ +@> .

Q‘ !‘ % C ‘ 3$‘ 3, >‘ .!‘ ,4!‘ ,,,!‘ (%3!‘ F ! J :%,)5 G‘ 5‘ % !‘ 3!‘ ((F.! J 4% (%‘ 1!‘ ,,!‘ *% 4%+% ‘)% ‘ !%,,‘ 6 !‘ 0 !‘ I! J N$,%‘)% ‘ 1!

8 6 ' ' ' 5 ;

1 J O' B A1+>0C>!' <+' %>0=+@' $.1H>' +@>' ?A . +?' 1'' +@>'
11.?!' J @1' J>.>' .>D#C>D' +1' +@>' B 1?+' @#B $%>' C10P
C>?? 1O?' L' <OD' +@>' <+@1% C' H 0=!' Q'#0 J %% 0=!' 1#+' 1''
@ ?' =.><+' C%>B >OCE!R' ?<E?' $<.C<!' ' +1' ?+< O' @ ?'
?J 1.D' J +@' +@>' $%11D' 1'' <%%' +@>?>' J %D' $><?+?' 1''+@>'
%A#K<..<?!R' C1O?>0+>D' +1' +>.B ?!' J @ C@' B <E' $>'
D>>B >D' .><?1O<$%>!' <+' %><?+' O' C1BA<. ?1O' J +@' @ ?'
A.>, 1#?' A1% CE ' @>?>' J>.>' +@>' D>% ,>.E' 1'' +@> .'
<.B?' <OD' '1.+.>??>?!' <OD' +@>' A<EB >0+' 1'' +@>' .1#OD'
?#B' 1'' 8 ! ' D#C<+? T

?' ?11O' <?' +.<0F# %% +E' J <?' .>>?+<$% ?@>D!' B><P
?#.>?' J>.>' +<H>O' '1.' ?>C#. O=' +' A>.B <0>0+%E!' $E'
0+.1D#C O=' @. ?+ <0 +E' <B 1O=' +@>' 0<+ ,>?!' J +@1#+'
J@ A@' +@>E' C1#%D' 0>,>.' .>B< O' J>%%' <''>C+>D' +1' +@> .'
A.>?>0+' =1,>.0B >0+' 1%E' B>0' J>.>' +@>.>'1.>' ?>0+'
<?' B ?? 1O<. >?!' +1' <DB 10 ?@' +@>B' C<%B %E' <0D' J +@P
1#+' , 1%>0C>' 1'' +@> .' >..1.?!' <OD' +1' 0?+.#C+' +@>B' O'
+@>' =.><+' +.#+@?' 1''.>,>%<+ 10 '' <. 1#?' B B#0 + >?'
J>.>' <%?1' A.1A1?>D!' <?' <0' <DD + 1O<%' 0C>0+ ,>' +1'
C10,>.? 1O!' 0C%#D O=' <O' >0+ .>' >K>B A+ 1O' +1')+@>'
A<.+E' '.1B' +@>' A<EB >0+' 1'' @ ?' ?@<.>' 1' '+@>' @><,E'
B #%C+' %<+>%E' BA1?>D 3' @>' J ?D1B' 1'' +@U>?>' +>B P
A>.<+>' B><?#.>?' $>C<B>' >,>.E' D<E' B1.>' , ? $%>' O'
+@>' C10,>.? 1O!' 01+' B>.>%E' 1'' +@>' ? B A%>' B1#0+< 0P
>>.?!' $#+' 1'' 0><.%E' <%%' +@>' A1"B %<+ 1O' 1'' +@>' =.><+

$' % 1 ' 4 ,)! ,4!,!' (%3!' 1% 5 G' 8, !' !' (%3!' (F.!
FF.,,,! J 4% (%' C '5' %'!' ' ,., ' , ' %' ' ' 5'
1!' ,,!' 0 !' ' J'*$ %' 5' ' E% 5 (,)'C' % ' 3$F% % '2$'
% %(, ' !' (%3!' (,F! J 5%' ' ( ).,,) '%' ' 5 '?$, '5'
*)!' 5' ' ' ,4!' .!' (%3!' 6 !' (A,.!' 5' ,1%)(%' '%3'
FF,.! 1!' 5' (%5!' 1!' .,!' 3)5!'
0' 5%' ,4!' .!' (%3!' FF,.! J F,.!

C + >?‘ 1 ’‘ <G<!‘ #<D K!‘ <0D‘ %B >. <!‘ J@1‘ C10?>0+>D‘ $>'1.>‘ +@>‘ >0D‘ 1 ’‘ +@>‘ E><.‘ +1‘ <$"#.>‘ +@> .‘ <0C >0+‘ .>% = 10!‘ <0D‘ .>C> ,>‘ $<A+ ?B T

@ ?‘ D>'>C+ 10!‘ @1J>,>.!‘ C<#?>D‘ =.><+‘ ?C<0D<%‘ <B10=‘ +@>‘ B1.>‘ ?+#.DE‘ 1 ’‘ +@> .‘ C1#0+.EB >0L‘ <0D‘ <‘ 0>J‘ 0?#..>C+ 10‘ $.1H>‘ 1#+!‘ >C>B$>.‘ 8 !‘ 10‘ +@>‘ ><?+>.0‘ C10' 0>?‘ 1 ’‘ +@>‘ %A#K<..<?!‘ J@ C@‘ J<?‘ ?#AP A.>??>D‘ J +@‘ ? B %<.‘ C .C#B?+<0C>?‘ 1 ’‘ ?+>.0‘ ?>,>. +E!‘ <0D‘ <‘ ? B %<.‘ >K<C+ 10‘ 1 ’‘ <‘ @><,E‘ ?#B‘ 1 ’‘ B10>E!O ‘ B10>E!‘ J@1?>‘ D1#$+'#% >'' C<CE‘ B<E‘ $>‘ D ?C>.0>D!‘ ?1B>+ B>?‘ 0‘ ?+<E 0=!‘ $#+‘ B1.>‘ '.>F#>0+%E‘ 0‘ ?+ B#P %<+ 0=‘ +@>‘ <.B‘ 1 ’‘ A>.?>C#+ 10 '

#+‘ J@ %>‘ +@>‘ B#.B#.?‘ 1 ’‘ .>$>%% 10‘ D >D‘ <J<E‘ 0‘ +@>‘ ><?+!‘ +@>E‘ J>.>‘ @><.D‘ 0‘ +@#0D>.?‘ '.1B‘ +@>‘ D ?P +<0+‘ @ %%?‘ 10‘ +@>‘ J>?+>.0‘ $1.D>.?‘ 1 ’‘ .<0<D<‘ @ ?‘ D ?+. C+!‘ C1BA.>@>0D 0=‘ +@>‘ ? >..<?‘ >.B>"<‘ <0D‘ %%<‘ #>0=<!‘ 0‘ +@>‘ 0> =@$1#.@11D‘ 1 ’‘ 10D<!‘ J<?‘ A>1A%>D‘ $E‘ <‘ J<.% H>‘ <C>!‘ <B10=‘ J@1B‘ J<?‘ +@>‘ '. C<0‘ +. $>‘ 1 ’‘ <0D#%>?!‘ J@1?>‘ $%11D‘ $1 %>D‘ J +@‘ +@>‘ ?<B>‘ +.1A C<% '>.,1#.‘ <?‘ +@<+‘ J@ C@‘ =%1J>D‘ 0‘ +@>‘ ,> 0?‘ 1 ’‘ +@> .‘ <0C>?+1.?‘ @>E‘ @<D><.%E‘ ?@1J0‘ ?EBA+1B?‘ 1 ’‘ D ?C10+>0+‘ <+‘ +@>‘ %<+>‘ A.1C>>D 0=?‘ 0‘ +@>‘ C<A +<%‘ @>‘ #C@>??‘ 1 ’‘ .C1U‘ J D1J‘ 1 ’‘ +@>‘ = ><+‘ <.F# ?MD#H>‘ 1 ’‘ <D G!‘ J@1?>‘ >?+<+>?‘ %<E‘ 0‘ +@<+‘ F#<.+>.!(‘ #?>D‘ @>.‘ A>.?10<% >K>.+ 10?‘ +1‘ <AA><?>

L‘ *% 4%+% ‘ !‘ %$ 6 !J‘ :% ,4%C‘ 1!‘ ,,!‘ ,4!F,F!‘ (%3!F! 0‘ *% 4%+% ‘ !‘ %0, ‘ 6 !J‘ N$, %‘ 1!‘ .!‘ ,4!‘ ,.!‘ (%3!FF.,,!‘ FFF,!

?‘ A ‘ ' % ‘ % 2$, ‘ 0‘ *%5,G

B% ‘ A, 5‘ * $) ‘ 0‘ (‘0 1‘ BA,(A‘ A, ‘5 ( )5%) ‘ @‘ A , ‘ , ‘)‘ A ‘ $13 ,)‘ 0‘ *%5,G‘ 4C‘ A ‘ (B)‘ %0 ‘ A, ‘ 5 % A!‘)5 G%‘ ,')‘,5%5 ‘5 ‘ *% , %‘ ,4‘ ,,,!‘ (%3!‘ .,,,!‘ F.,,!

+@>BU <0D +@> =1,>.0B>0+ B<D> +@> B1?+ ><.0>?+ <??#.<0C>? 1'' +?0+>0+ 10 +1 .>?A>C+ J@<+>,>. @<D $>>0 =#<.<0+>>D $E +@> +.><+E 1'C<A +#%<+ 10 T #+ +@>E @<D %><.0>D +1 A%<C>% ++%> +.#?+ 0 A. 0C>? L <0D +@> .<A D%E >K+>0D 0= <A1?+<?E 1'' +@> . C1#0+.EB>0 >K<?A>.<+>D +@>B +1 ?#C@ < D>=.>>! +@<+ +@>E <+ %>0=+@ $.1H> 1#+ 0 +@> B1?+ <+.1C 1#? <C+? 1'' , 1P %>0C> L B#.D>. 0= +@> @. ?+ <0 B ?? 10<. >?! <0D H D0<AA 0=! '' .>A1.+ $> +.#>! B<0E A<0 <.D? 1'' $1+@ ?>K>?! J@1B +@>E ?1%D <? ?%<,>? 0 '. C< @>E J>.> <CC#?>D! J +@ '<. B1.> A 1$<$ % +E! 1'' >0+>. 0= 0+1 < ?>C.>+ C1..>?" 10D>0C> J +@ +@> . $.>+@.>0 10 +@> 1AA1? +> ?@1.>! 0 1.D>. +1 ?>C#.> +@>J ?#AA1.+ 0 +@> B>D +<+>D .>,1%+ &'

L B 5% 5 ., ?%)$% C%)5 4 $% C 6 %5; 5 5 4C 5,)%)5 %)5 %; 4 % A ,)A%4,%) 0 A %),% 5)5% 3 . 5 ,) A % (A,. 0 ,1%)(% %3! 1! 5 (%5 5 8, ! 1! .,! $! =E!

>R 1% 5 G 8, ! ! (%3! (F.! J 5% ,4! .! (%3! FF.! J ! % C 3$ 3, ! 3! ((FF,!

A (13%,) 0 A 3%), A %)5 0,(%) A $ %) 0 'C3 0 %4C)%A B% A) $ $% C C 5 A%5 5 %B) 0 1 A% 3,)(A% 3 ; 1) %)(A *A %A ,(. ; ,') %'%,) A ,3 ($,) 0 A 1 %((13%), 5 4C 1)%(0 ,(%,% ,)) A *A , ,%) ,) A, 5 1,),) !) 5 %. $(A(% %1, $ ( ); 2$)(% C B%) % %14% %5 'C3 ! 8 0 : %)%5% ,) $'$ 6 3 ; (5 5 E),(%)5 14% @ 5 A 0 F%)5 ,% BA,(A A %(A 5 ,) (14 ! A $'A (%$,) 5) A, % ,.% A% A, 1, ,) ,) A 3) F% 3 ; % 5 % 0 0 ,) '% A ($ 1,'A (A,1 A, A %5 A 5%$)). C %, 5 $3 A , $)5 %% %1 $@ '$% 5 : %)5 *%, ! % 0 1 F3 ; ,)(,) '' %)C $ %' A B . A B% ($ $ C (,. 5 4C A $ %) % A $'A A %14% %5 5 (,) 5 (13 1, ,) '' A 5,'), C 0 A ($ A 3 ;) 5 4C 3%C,) '' A $ $% A$; 1, ,% ,) '' 1% @ 0 4 , %)(,) 3 %,) '' A,1 0) A '' $)5 , A C% 3)(4 %) ,)5 ; 3)5) 4 % ,) '' A, 'A C %, 0%(>

@>' =1,>.0B>0+' D ?A%<E>D' +?' #?#<%' A.1BA+0>??' <0D' >0>.=E' 10' +@ ?' 1CC<? 10 ' .D>.?' J>.>' ??#>D' +1' +@>' A. 0C A<%' C@ >'?' <0D' C + >?' 1'' 0D<%#? <!' +1' B#?+>.' +@> .' '1.C>?' J +@' <%%' A1?? $%>' D>?A<+C@!' <0D' C10C>0P +.<+>' +@>B' 10' 10D<' @>' ?#BB10?' J<?' 1$>E>D' J +@' ?#C@' <%<C. +E!' +@<+!' 0' +@>' C1#.?>' 1''<' ,>.E' '>J' J>>H?!' +@>' ?+.>>+?' 1'' +@<+' $#?E' C +E' J>.>' +@.10=>D' J +@' <' ?@ 0 0=' <..<E' 1'' J<.. 1.?' D.<J0' '.1B' <%%' +@>' A. 0C A<%' +1J0?' 1'' 0D<%#? <' >, %%>' ?>0+' +@.>>' @#0D.>D' @1.?>' <0D' +J1' +@1#?<0D' '11+' @>' A. 0C P A<%' %><D>.?' 1'' +@>' >KA>D + 10' J>.>' +@>' 10D>' D>' '#>0+>?!' J@1' <?' <?? ?+<0+' 1'' >, %%>' C1BB<0D>D' +@>' +.11A?' 1'' +@<+' C +EL' +@>' 10D>' D>' .>0<!' <0D' %10?1' D>' =# %<.!' >%D>.' $.1+@>.' 1'' +@>' .><+' <AP +< 0!' <0D' D ?+ 0=# ?@>D' % H>' @ B' '1.' +@>' @ =@>?+' F#<% + >?' 1'' B 0D' <0D' A>.?10

+' J<?' D>+>.B 0>D' $E' +@>' C@ >'?' +1' ?+. H>' <+' 10C>' 0+1' +@>' @><.+' 1'' +@>' >..<' >.B>"<!' 1.' .>D' ?>..<!' <?' +' J<?' C<%%>D' '.1B' +@>' C1%1#.' 1'' +?' .1CH?!' .?0=

C' ' A ' *% ,,%)' A, ,%) !' P ' :%,4%C' 1!',,! ,4!F,F!(%3!' F,,!X' 8 ' A%5' A ' %$5,)(',)' RBA,(A' A ' $((5 5' '(13 ; C',)' 00%(,)'' A ' $)0%. $ %4 ' ,13 ,)' 0' A ' 1'3 ,)(' A%' A' % ') ')C' 5, ; 1, 5'A,1'B,A',4 %'3) ' 4$' ' %) 5'%' A,' 2$ ' . %' ,13 ,%)' 3 ,., ' ' ' A ' *A , ; ,%)' ,5) '%)5' A '3, ' ,1 ' ' A '8 C' %)5' BA,(A' %C' B, A,)' A,' 5 1,),) ! % C K' %(($)' 0' A, ' ,) ,)'' >., ' BA,(A' '%. ' A,1' %13 ' 33 $), C' 0

$5C,)'' A ' 1%)) ' 0' %')%; ,)' %)5' ,)'' A ' $3)5 $' 1)$1) ' 0' %)(,)' % ' A)' , ' 0%1, ,% ' ' $ 3 %) ' B%' 3$4 , A 5',)' % ,)' $)5 5 ' A ' ,; ' 0' Y' ' '%,) ' %4C >'),(D>' ,)' A ' 4 @' %33)5 5' ' A, ' 1 ' (4 % 5' Y (%; 5 '5 ' 4$ S (%),(, ' ' . ' 4 ![' %G$(A ' P (, ' 5K % ,% ' . F) 'A, % X') ,(' %)' 5, ,)' BA,(A' A' A%5')' 3$4; , A 5' 3% % C' B A $' 5% ' ')%1 ' 0' A ' 3 ,) !

+1' +@>' ><?+' 1'' 10D<!' +@>' A. 0C A<%' +@><+.>' 1'' 0P ?#..>C+ 10' 0' +@>' 4+@' 1'' <.C@' 8 !' +@>' % +P +%>' <. B E' >0C<B A>D' $>'1.>' 10<.D<!' 10' +@>' ?H .+?' 1'' <' B1#0+< 0' J@>.>' +@>' 11.?' J>.>' #0D>.?+11D' +1' @<,>' <??>B$%>D' 0' C10? D>.<$%>' '1.C>' @>E' @<D' 01+' $>>0' %10=' 0' +@>?>' F#<.+>.?' $>'1.>' A<.+ >?' 1''+@>' >0>B E' J>.>' ?>>0' @1,>. 0=' <%10=' +@>' ?%1A>?' 1'' +@>' B1#0+< 0!' '.1B' J@ C@' +@>' @. ?+ <0' C<B A' J<?' D P , D>D' $E' <' 0<..1J' . ,>.!O +@>' 1' >.D>!' A.1$<$%E!' J@ C@' @<?' =< 0>D' ?#C@' B1#.0'#%' C>%>$. +E' 0' A<0 ?@' ?10= T' =# %<. ?' +.11A?!' J@1' 1CC#A >D' +@>' ,<0!' J>.>' ?1' B#C@' .1#?>D' $E' +@>' ? =@+' 1'' +@>' >0>B E!' +@<+' <' ?B<%%' A<.+E!' ?> G 0=' <' $<00>.!' .#?@>D' <C.1??' +@>' ?+. <B' J +@1#+' 1.D>.?!' 0' A#.?# +' 1'' +@>B ' @>' 1DD?!' @1J>,>.!' J>.>' ?1' #0>F#<%' +@<+' +@>E' J1#%D' @<,>' $>>0' ?>,>.>%E' @<0D%>D!' @<D' 01+' =# %<.!' J@ %>' @>' $ ++>.%E' C10D>B0>D' +@> .' +>B>. +E!' <D,<0C>D' A.1BA+%E' +1' +@> .' ?#AA1.+' J +@' +@>' .>B< 0D>.' 1'' @ ?' C1.A?' @>' 1#0+' D>' .>0<' '1%%1J>D' J +@' +@>' C>0+.<%' D , ? 10!' %><, 0=' +@>' 1#0+' D>' '#>0+>?' J +@' +@>' +.11A?' 1'' >, %%>' +1' A.1+>C+' +@>' C<B A '

L' :' , 'E 5 ' , 'E 5 ,) ' .%')' %)' ' . , . % J (C',)'A,%B >@) B)' . ,)' 0') ' 0' A ' %' %4 ' : 1%)(' %5 3 ' A ' %1 ' 3, A ' 0'Z'') ' ,. ['0 1' A '%B@; B% 5) 'A' %C ' 0' A ' , %' %) % ,)' 0' Z' . 5%)' ,. ![' 8 ' B%') ' %B% ' , '%33 % ' A%' A ' 3%), A' B%' %' 3 3 ')%1 !' P ' ,2$ ' 0')(,)' C' . !' ,!' 3' ' 6 A' 5!X' A ' 1 ' 0%, A0$' . ,)' 0 Y' ')' ,. ['A B . 'B $5' A%. ') A,)''. C'$)3 ,(%',)' , 4 A $'A' $' ',0 5'($) C1%)' C%) ' 1 ' ',) ,1% '4C'A, ' 1, ,)' 1 BA%' 0'%' ,1, %' 5,00,($ C',)'A, '%' %4 ' %)G%')' A ' 4 %$,0$' %1' 0' A%')%1 ' ,)' B') ' %)5! ' N$),'%')% '5 ' ., %' %,, ' 6 !' J' 4% (%' C '5 ' %')' 1!' ,,!' 3!' D ! J 5%' *),(%' ,4!' .!' (%3!' FF.,!> J' 1%5 G'8, !' !' (%3!' (F.! $

@> 11.? '>% $<CH <? +@> @. ?+ <O? <D,<OC>D! <OD! .>+.><+ O= O B$%E '.1B A1 O+ +1 A1 O+! %>D +@>B #A +@> .#==>D ?+>>A? '<. O+1 +@> .>C>??>? 1 ' +@> B1#O+< O? + %>O=+@ +@>E .><C@>D <O 1A>O %>, >%! >OC1BA<??>D 10 <% ? D>? J +@ < O<+#.<% .<BA<.+ 1 ' .1CH?! J@>.> +@>E @<D D>A1? +>D +@> . ,<%#<$%> >'P '>C+?! +1=>+@>. J +@ +@> . J ,>? <OD C@ %D.>O @> %<++>.! <+ ? =@+ 1 '+@> O,<D>.?! #++>.>D D ?B<% C. >?! <OD '%>D O+1 +@> .>B 1+>. D>A+@? 1 '+@> ? >..<

@> @. ?+ <O? J>.> +11 B#C@ <++.<C+>D $E +@> . C@ ?A1 % $>'1.> +@>B +1 +@ OH 1 ' '1%%1J O=! <OD D ?P A>.?>D O >,>.E D .>C+ 10 O F#>?+ 1 ' A%#OD>.! J +@ <% +@> @>>D%>??O>?? <OD O?#$1.D O<+ 10 1 '.<J! O>KP A>. >OC>D %>, >? + J<? O ,< O +@<+ %1O?1 1D> =# %<. .>B OD>D +@>B ! +@<+ +@> . J %E >O>BE J<? ?+ % #OC1OF#>.>D L 1. +@<+ @> >OD><,1#.>D +1 '1.C> +@>B O+1 +@> .<OH? <=< O! <OD .>?+1.> 1.D>. 1 10> @>>D>D @ ? C<%! 1. +@1#=@+ 1 ' <OE+@ O= $>E1OD +@> A.>?>O+ B1B>O+! <OD 1 ' ?>C#. O= <? B#C@ $11+E +1 @ B?>% ' <? @> C1#%D C<..E

@> 11.?! O +@> B><O J @ %>! ' OD O= +@>B ?>%,>? O1 %1O=>. A#.?#>D! J>.> <J<.> 1 ' +@> 1CC#A<+ 10 1 ' +@> @. ?+ <O?! J@1B +@>E O1+ BA.1$<$%E @<D A#.P A1?>%E D>C1E>D O+1 +@> ?O<.> @>E .>?1%,>D +1 .> +#.O +1 +@> ?C>O> 1 ' <C+ 10 <OD ?#.A. ?> +@> . OC<#P + 1#? >O>BE +><%+@ %E <D,<OC O=! +@>.>'1.>! #OD>. +@> ?@<D1J? 1 ' O =@+! O1J '<% O= +@ CH <.1#OD! +@>E

Y $ 1$C ') , (%3, %) [ ), ',%)5 5 6 %),), 0$> %C ., 5 3 %@,) ' 0 A, G ![#$,)($%')% ! % ! %) 4 1%) Y C.% ,) %)> ! 2$,)(! ! 5,% ! G%< C 1$(A% . G 5, ,1 >

A1#.>D +@.1#=@ +@> .1CHE D>' %>? 1'' +@> OC%1?#.> #A10 +@> <?+10 ?@>D A<0 <.D? 0 #0%#CHE >KA%1P ? 10 <+ +@ ?C. ? ? 1'' < C<?H 1'' A1JD>.! 0+1 J@ C@ < ?A<.H @<D <CC D>0+<%%E '<%%>0! +@.>J < $.1<D =%<.> 1,>.> +@> ?C>0>! <0D .>,><%>D '1.> < B1B>0+ +@> ? +#<P + 10 1'' +@> @1?+ %> A<.+ >?L +@> A<0 <.D? 0 +@> #+P B1?+ D ?1.D>.! B<0E 1'' +@>B J +@1#+ <.B?! <0D ?+<=M =>. 0= #0D>.> +@> J> =@+ 1'' +@> .' '<+<% $11+EL J@ %> +@> .'>0>B >? J>.>? >>0 =% D 0= % H> ?1 B<0E D>B10? 1'' D<.H0>?? +@.1#=@ >,>.E C.>, C> <0D <,>0#> 1'' +@> OC%1?#.>! 0 +@> <C+ 1'' ?A. 0= 0= 10 +@> .' D>,1+>D , C+ B?' @ ? <AA<%% 0= ?A>C+<C%>! ,<0 ?@ 0=' <%B1?+ <? ?110 <? ?>>0! <0D '1%%1J>D $E +@> @ D>1#? E>%%? <0D J<.MC. >? 1'' +@> <??< %<0+?! ?+.#CH < A<0 C 0+1 +@> @><.+? 1'' +@> ?1%D >.?! J@1 '%>D! ?C<.C>%E 1% >. 0= <0E .>? ?+<0C>' @> D<.H0>?? 1'' +@> 0 =@+ J<? <? '<,1#.<$%> +1 +@> 11.?! '<B % <.' J +@ <%% +@> 0+. P C<C >? 1'' +@> =.1#0D! <? + J<? '<+<% +1 +@> @. ?+ <0?! J@1! $>J %D>.>D 0 +@> B<G>? 1'' +@> ? >..<! <0D %1? 0= +@> .' '11+ 0= <+ >,>.E ?+>A! '>%% #0D>.' +@> ?J1.D? 1'' +@> .' A#.?#>.?! 1.' J>0+ D1J0 +@> D<.H =#%'? <0D A.>C A C>? J@ C@ E<J0>D <%% <.1#0D T

B D?+ +@ ? D.><D'#% C10'#? 10! +@> 1#0+ D> .>M 0< ?#CC>>D>D 0 =< 0 0= < %1J>.' %>,>% 1'' +@> ? >..<! J@>.> @> @<%+>D <0D >0D><,1#.>D +1 .<%%E @ ? A<0 CM ?+.#CH '1%%1J>.? ? 01$%> C1B.<D>! %10?1 D> =# %<.! ?+ %% B<0+< 0>D @ ? A1? + 10 10 +@> @> =@+?

$ 4% (% C '5 %'! 1! ,,! 84! F,F! (%3! F! J 1% 5 G ,,! 0 ID ! J'N$, %) % 8, ! ! (%3! (F.! J % 1 & 1! E! ,4! ,.! (%3! FFF,,,! J ,4! ,! (%3! FF.,,,! :%,4%C * 13)5! 8, 1

<$1,>! .>'#? 0= <%% >0+.><+ >? 1" @ ? '1%%1J>.? +1 <+P +>BA+ < .>+.><+ T @>0!R ?< D @> A.1#D%E! Q J<? +@> $<00>. 1" =# %<. >,>. H01J0 +1 '%E '.1B +@> ' >%D 2R 5% ? >%D>?+ ?10! +@> @> . 1" @ ? @1#?> <0D @101#.?! 10 5>D.1 D> 1.D1,<! < E1#+@ 1" =.><+ A.1B ?>! '1#=@+ <+ @ ? ? D> > @<D .>C> ,>D < ?>P ,>.> J1#0D 10 +@> @><D '.1B < ?+10>! <0D <"<,>% 0 @<D A >.C>D F# +> +@.1#=@ @ ? %>= J +@ 10> H0>> .>?+ 0= 10 +@> =.1#0D! @1J>,>.! @> ?+ %% B<D> < $.<,> D>'>0C> J +@ @ ? ?J1.D @> ? =@+ J<? +11 B#C@ '1. +@> '<+@>.! <0D @> BA%1.>D @ B +1 ?#''>. @ B?>%"+1 $> .>B1,>D '.1B +@> ' >%D W >+ 01+ +@> @1A>? 1"1#.' @1#?> $> C.#?@>D <+ < ? 0=%> $%1J!R ?< D @> Q 1! /' ?10L % ,> <? $>C1B>? < @. ?+ <0 H0 =@+LO % ,>! <0D C@>. ?@ E1#.' D>?1%<+> B1+@>. R %% @ ? >0+.><+ >? J>.> '.# +%>??! @1J>,>.L <0D +@> =<%%<0+ $1E .>'#?>D +1 %><,> @ ? '<+@>. ? ? D>! + %% @> J<? '1.C $%E $1.0> <J<E $E +@> <++>0D<0+?! J@1 '1.P +#0<+>%E ?#CC>>D>D 0 $. 0= 0= @ B 0 ?<'>+E +1 +@> ?+<+ 10 1CC#A >D $E +@> 1#0+ D> .>#< T

><0+ B>! +@> $.<,> % ++%> $<0D 1"C<,<% >.?! J@1 .>B< 0>D +.#> +1 =# %<.! @<D '<%%>0 10> <'+>.' <0P 1+@>.'L <0D +@> C@ >'! %>'+ <%B1?+ <%10>! .>+.><+>D +1 < @#=> .1CH J@ C@ .1?> 0 +@> B DD%> 1"+@> A%< 0! <0D! A%<C 0= @ ? $<CH <=< 0?+ +! ?+ %% B<D> ' =@+! +@1#=@ J><H>0>D $E %1?? 1"$%11D! % H> < % 10 <+ $<E

L)5 G% :$, % 5 : %; A 4 C BA ,. 5 1%)K)%5% 3! !J 4% (% 1! ,,! % B% %0 B% 5 (% 5 0 ! D ! J % 1 4) ,4! % 2$, 5 , ' 4C A *% A ; ,! (%3! FF.,,,! J #$,)($%')% ,(. ,') ! ,') 5 % ! % ! 2$,)(! 5,% ! ! ,')! 5 *% , % ,4! ,,! (%3!F,,,!

<=< 0?+ @ ? >0>B >? T 0 +@ ? ? +#<+ 10 @> J<? A.>??>D ?1 @<.D $E < 11. 1 ' #0C1B B10 ? G> <0D ?+.>0=+@! +@<+ @> J<? C1B A>%%>D +1 +#.0 <0D C%1?> J +@ @ B 0 ? 0=%> C1B $<+ @> ?+. '> J<? %10= <0D D>?A>.<+>! + %% 10 %10?1! J@1?> C1.?>%>+ @<D $>P C1B > #0%<C>D 0 +@> A.>, 1#? ?+.#==%>! @<, 0= .>P C> ,>D < ?>,>.> J1#0D 0 +@> $.><?+! '1%%1J>D $E <01+@>. 10 +@> @><D! =.<AA%>D C%1?>%E J +@ @ ? <D,>.P ?<.E! <0D +@>E C<B > .1%% 0= 10 +@> =.1#0D +1=>+@>.   @> 11. .>B< 0>D #AA>. B 1?+L $#+ +@> ?A + 1 '+@> A<0 ?@ C<,<% >. @<D 01+ ?#0H J +@ @ ? ?+.>0=+@! <0D @> A.1#D%E >KC%< B >D! <? ' +1 0+ B D<+> @ ? >0>B E! Q <B 10 %10?1 D> =# %<.Z +1 J @ C@ +@> 1+@>. .>"1 0>D! Q 0D <B +@> >. D> >0 ?+>A<.Z < J>%%MH01J O 0<B > 1 '+>..1. +1 +@> @. ?+ <0? @> ?1#0D 1 '+@ ? D>+>?+>D 0<B > .1#?>D <%% +@> ,>0=><0C> 1 '+@> DE 0= @>.1L <0D! =.<?A 0= @ ? '1> 0 B1.+<% <=10E! @> .<%% >D @ ? ?+.>0=+@ '1. < ' 0<% $%1 J L $#+ + J<? +11 %<+>! O @ ? @<0D '< %>D! <0D @> J<? ?110 D>?A<+C@>D $E +@> D<==>. 1 '@ ? B1.>, =1.1#? . ,<% ' <.C@ 4! 8

L , A ,1, 0 A 0,) 5 4% %5<
H 2$ 5%))
$ (%13%)% %(%A%5%
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3 (%3 . (A%4%!Z
 *$ % 5 % %(, !
$4, $3 %! J 4% (% 1! ,, $4, $3 %! J :% ,4%C 8, ! 1! ,,! ,4! F,F! (%3! F! J)5 G% :$; %5 : %)%5% 3! ? J %)5 ; .% 8, ! 5 *% E! %!,! 3! ((5,) ' 8C %K 3 !

'$,% A%5 0, !TT 5 3% (A 5 1 A%) A, C B, A A, B) A%)5! P:$ % *,., 5 : %)%5% % ! ,! 3! 6 I!X A 4% %5 B, A 1 5, (; ,) 5) . $(A 0 %) C 3% ,($ %)$14 ! 8))) , 13 $C ' %) % % %A%(,% (%.% A%.,%) 1$ 1$ % %),%! % ,1%5 % %$) ' %) 3 0,) *) .% 5 0)5,%

$(A

@#? '>%% %10?1 >.0<0D>G D> 1.D1,<! 1. %10P ?1 D> =# %<.! <? @> ? C1B B10%E C<%%>D '.1B +@> %<0D J@>.> @ ? '<B %E >?+<+>? %<E T W >J<? 1' +@> =.><+>?+ <#+@1. +E <B10= +@> =.<0D>>? 1' @ ? + B>!R ?<E? <+@>. $<.C<! W '1. @ ? % 0><=>! A>.?10<% C@<.<C+>.! %<.=> D1B< 0?! <0D +@> @ =@ A1?+? J@ C@ @> ' %%>D! $1+@ 0 A><C> <0D J<. 1.> +@<0 '1.+E E><.? 1' @ ? % '> @> ?>.,>D <=< 0?+ +@> 0' D>%! #0D>. +@> $<00>. 1' @ ? @1#?> 0 $1E@11D! <0D <? %><D>. 1' +@<+ ?<B>$<00>. 0 %<+>. % '>! 1. <? , C>.1E 1' 0D<P %#? <' <0D C1B B<0D>. 1' +@> .1E<% <.B >? > J<? +@> ' '+@ %1.D 1' @ ? J<.% H> <0D A 1#? @1#?> J@1 '>%% ' =@+ 0= '1. +@> . C1#0+.E <0D .>% = 10 <=< 0?+ +@> <CC#.?>D ?>C+ 1' <@1B>+ 0D +@>.> ? =11D .<P ?10 +1 $>% >,>!R C10+ 0#>? +@> ?<B> 1.+@1D1K <#+@1P . +E! +@<+ @ ? ?1#% @<? .>C> ,>D +@> =%1. 1#? .>J<.D 1' +@> @. ?+ <0 ?1%D >.! ? 0C> @> J<? <.B>D 10 +@<+ ,>.E B1.0 0= J +@ +@> $%>??>D ?<C.<B>0+? 1'C10'>?P ? 10 <0D C1.<B#0 10 RM

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2$ 4 (% '%) $,(A
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A B% , K 5 % A , $1;
1 5 $3 B, A %) % 4 ., C
A% B $ 5 4 %00 (% ,),) 1
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Q % : , ., 0,)5 %) C;
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% A %@,)' 0 * 5 .% \
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, ,% 3, A 0 '$, % < % ;
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A : % *%3 %,) % B A%.
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@> , C+1. 1#? 11.?! <%% +@ ? + B >! , U>.> D. , 0= +@> #0.>? ?+ 0= A<0 <.D?! % H> ?1 B <0E +>.. ' >D D>>.! D1J0 +@> D<.H ?+>>A? 1 ' +@> ? >..< @> 1#0+ D> .>0<! J@1 @<D ?>>0 @ ? ?10 ?+.>+C@>D $E @ ? ? D>! <0D .>C> ,>D < ?>,>.> J1#0D @ B?>%'! B<D> +@> B1?+ D>?A>.<+> >''1.+? +1 .<%%E +@> '#= + ,>?! $#+ J<? <+ %>0=+@ ?J>A+ <J<E $E +@> +1..>0+ .#?+ 0= @ B?>%' +1 < '< +@'#% <D<% D! J@1 H0>J +@> A<??>?! @> ?#CC>>DP >D J +@ B#C@ D '' C#%+E 0 .><C@ 0= +@> '11+ 1 ' +@> B1#0+< 0! J +@?#C@ < ?B<%% .>B0<0+ 1 ' @ ? '1%%1J>.? <? C1#%D H>>A 0 @ ? +.<CH T 1.+#0<+>%E! @> +@>.> '1#0D +@> 1#0+ D> '#>0+>?! J@1 @<D C.1??>D +@> . ,>. J +@ +@> .><.=#<.D! <0D >0C<BA>D 10 < . ? 0= =.1#0D 0 +@> 0> =@$1#.@11D 0D>. '<,1#. 1 ' +@ ? ?+.10= A1? + 10! +@> %<++>. C1B B<0D>. <0D @ ? $.<,> >, %% <0?! <%% '.>?@ '1. <C+ 10! J>.> >0<$%>D +1 C1,>. +@> ?@<++>.>D .>B< 0? 1 ' +@> A<0 <.D?! <0D $><+ 1''

A A K 4 5C 0) A 0, 5 0 4% B% % 5 B, A 5 ( ) 3 (4C A BA 5 , " ,) ' 5,;)%)5 < %)5 A . ,') (%$ 5 , 4 ,) 5 B, A % $, ; %4 3 13 ,) A (A$ (A 0 ! 8C3 , % * 5 .%! %)C C % %0 B% 5 A % (A,); 5 , ' A, 5 ( )5%) A%5 A 14 3) 5 < %)5) F%1,),) ' A 1 $ 5 ,) ' ; 1%,) A ,)A %5 0 %' %)((,. 5 ,) A, % 1 % $' ' B% 0 $)5 4$, 5 ,) A 4) ! 5% ,4! .! (%3! FF.,! $* ' %14,) *)5 5 ;)%

%,A ,5) 5 1% ,% % 5 % % % .%5 3 $)% '$,%! Z #$ %4,% 4,) %)5% #$ 5 % , % %,% $ A 5 F%4% 1$ & $' %)5 .% T) ,%! %14,) % '$) (%3%) #$ % 4$) *)5 '$,%)![., 5 3 %@,) ' 0 A, % 0 A ' 5 ($) %)5 A, 0 ; B %C E .,) % ,)5% % $ (%4% C , %) % 1% 2$ '% 3 3 % 1$, $5 5)0, !Z #$,) ($%')% ! % ! 2$,)(! 5,% ! !

+@> <??<#%+? 1 +@> . >0>B >? + %% +@> $.><H 1 B1.0! J@>0 +@>E ,<0 ?@>D % H> ?1 B<0E '1#% $ .D? 1 0 =@+ 0+1 +@> .>C>??>? 1 +@> B1#0+< 0?

@> . ? 0= D<E! J@ C@ D ?A>.?>D +@> . '1>?! 01J .>,><%>D +1 +@> @. ?+ <0? +@> D.><D'#% >K+>0+ 1 +@> . 1J0 %1??>? >J J>.> +1 $> ?>>0 1 <%% +@<+ A.1#D <..<E J&@ C@ @<D B<.C@>D #A T+@> @> =@+? ?1 C10' D>0+%E #0D>. +@> $<00>.? 1 +@> . %%M'<+>D C@ >'? +@> A.>C>D 0= >,>0 0= @> '<+<% .1%% 1 ?%<#=@+>.! $>? D>? +@> C1B B10 ' %>! J<? =.<C>D J +@ +@> 0<B>? 1 +@> $>?+ <0D $.<,>?+ 1 +@> @. ?+ <0 H0 =@+@11D B 10= +@> 0#B$>. J<? .<0C ?C1 <B .>G D> <P D. D! +@> D ?+ 0=# ?@>D> >0= 0>>.! J@1 @<D C10+. P $#+>D ?1 >??>0+ <%%E +1 +@> ?#CC>?? 1 +@> .<0<D 0> J<. T

@> ?<D + D 0=? 1 +@> D>'><+ ?110 ?A.><D +@.1#=@P 1#+ +@> C1#0+.E! 1CC<? 10 0= < ?>0?<+ 10 ?#C@ <? @<D 01+ $>>0 '>%+ ? 0C> +@> +.<= C <'' < . 1 +@> K<.F# < >0 C1#%D ?C<.C>%E C.>D + +@<+ ?1 B#C@ B ?C@ >' C1#%D $> 0'% C+>D $E <0 1#+C<?+ .<C>! J@1! J@<+>,>. +>..1. +@>E 10C> 0?A .>D! @<D %10= ? 0C> $>>0 .>P =<.D>D J +@ 0D ''>.>0C> 1. C10+>B A+ ,>.E A<0P <.D ?>>B>D +1 C10? D>. @ B?>%' 0 ?1B> J<E 1. 1+@>. 0,1%,>D 0 +@> D ?=.<C> L <0D +@> B1?+ ?A . +>D >K>.P + 10? J>.> B<D> 10 <%% ? D>? +1 .>+. >,> + E +@> $>= 00 0= 1 A. %! S 0= >.D @<0D '1#0D @ B?>%' <+ 10D<! <+ +@> @><D 1 <' ?+.10= $1DE 1 +.11A?! J@ C@

L N$),'%)% 5 ., % ')% 5 ., 5 ! % ! % ,, 6 J :%,)5 G 5 *% 4%> 2$,)(! 5,%! ! +% !%) 6 ! J 5% * > % 1 3% ,($%) ,( )! ,4! .! (%3TFF.,! J #$,)($%> 0 %1, G % ,! (A%3! F,,,!

@>' D>+>.B 0>D' +1' %><D' 0' A>.?10!' 01+J +@?+<0D 0=' +@>' .>B10?+.<0C>?' 1'' @ ?' C1#.+ >.?!' 0+1' +@>' @><.+' 1'' +@>' ? >..<!' <0D' +<H>' $%11DE' ,>0=><0C>' 10' +@>' .>$>%?

@>?>' %<++>.!' @1J>,> M!' '<.' '.1B' $> 0=' >0C1#.<=>D!' J>.>' <AA<%%>D' $E' +@>' >K+>0+' 1'' +@> .' 1J0' ?#CC>??L' <0D' <?' +@>' 01+>' 1'' J<.% H>' A.>A<.<+ 10' .><C@>D' +@>B' 0' +@> .' '<?+0>??>?!' +@>E' '>%+' +@> .' +>B>. +E' 0' +@#?' $. 0= 0=' +@>' J@1%>' J> =@+' 1''+@>' <?+ % <0' B10<.C@E' 10' +@> .' @><D?' @>E' <CC1.D 0=%E' <$<0D10>D' <%%' +@1#=@+?' 1'' '#.+@>.' .>? ?+<0C>!' <0D' %1?+' 01' + B>' 0' ?>0D 0=' D>A#+ >?' +1' +@>' H 0= ?' C<BA!' +1' D>A.>C<+>' @ ?' <0=>.!' <0D' ?#>' 0' +@>' B1?+' ?#$B ?? ,>' +>.B?' '1.' A<.D10

>.D 0<0D!' +@1#=@' '<.' '.1B' , 0D C+ ,>!' J<?' %>??' 1A>0' +1' A +E' +@<0' +@>' F#>>0!' <0D' 0' +@>' A.>?>0+' 0P ?+<0C>' @>' 0D#%=>D' 0' <' '#%%' B><?#.>' 1'' +@>' 0D =P 0<+ 10' J +@' J@ C@' ?1,>.> =0?!' 0<+#.<%%E' D>0+ 'E 0=' +@>B?>%,>?' J +@' +@>' ?+<+>!' <.>' J10+' +1' .>=<.D' .>$>%P % 10!' $E' , >J 0=' +' 0' +@>' <==.<,<+>D' % =@+' 1'' <' A>.?10<%' 1''>0C>' '+>.' ?1B>' @>? +<+ 10!' @1J>,>.!' @ ?' A.#D>0C>' =1+' +@>' $>++>.' 1'' @ ?' A<?? 10?!' <?' @>' .>'%>C+>D' +@<+' @>' J<?' 0' <' ? +#<+ 10' +1' D C+<+>' +@>' +>.A ?' 1'', C+1.E!' J +@1#+' A<E 0=' +@>' #?#<%' A. C>' '1.' +' ?' A<?+' >KA>. >0C>' ?>>B?' +1' @<,>' C10, 0C>D' @ B' 1'' +@>' @1A>%>??0>??' 1'' 0'#? 0=' ?>0+ B>0+?' 1'' %1E<%+E' 0' <' #??#%B<0' +1J<.D?' <' @. ?+ <0' A. 0C>!' '1.' J@ %>' @>' =.<0+>D' <' =>0>.<%' <B0>?+E' +1' +@1?>' C10P C>.0>D' 0' +@>' 0?#..>C+ 10!' +' J<?' 10%E' 10' +@>' <%+>.P 0<+ ,>' 1'' $<A+ ?B' 1.' >K %>L' >0=<= 0=' <+' +@>' ?<B>

+ B >' +1' A.1, D>' C10,>E<OC>' '1.' ?#C@' <?' C@1?>' +1' %><,>' +@>' C1#O+.E!' 10' +@>' A<EB>O+' 1'' +>O' D1% %<?' 1'' =1%D' <' @><D T

@>?>' >O=<=>B>O+?' J>.>' A#OC+#<%%E' '#% %%>D' @>'

11. ?@' >B =.<O+?' J>.>' +.<O?A1.+>D' O' A#$% C' =<%%>E?' '.1B' ?+>A1O<' +1' +@>' <.$<.E' C1<?+' @>' O#B$>.!' @1J>,>.!' J<?' A.1$<$%E' ?B<%%L' $E' '<.' +@>' =.><+>.' A<.+' $> O=' 1$% =>D!' @1J>,>.' .>%#C+<O+%E!' '.1B' J<O+' 1'' '#OD?!' +1' .>B< O' <OD' $>' $<A+ G>D' Q' @>E' J1#%D' O>,>.' @<,>' ?+<E>D!R' ?<E?' %>D<!' W' '' +@>E' C1#%D' @<,>' B#?+>.>D' +@>' +>O' D1$%<?' 1'' =1%DL' <' C .C#B?+<OC>!R' C1O+ O#>?' +@<+' C@<. +<$%>' J. +>.!' Q' J@ C@' ?@1J?' J +@' J@<+' %>, +E' +@>E' .>C> ,>D' $<A+ ?B!' <OD' '1.' J@<+' A<%+.E' C1O? D>.<+ 1O?' +@>E' C1#%D' $>' =# %+E' 1'' ?#C@' ?<C. %>= 1#?' @EA1C. ?E'RN)

#+' <%+@1#=@' >,>.E' ?A<.H' 1'' O?#..>C+ 1O' J<?' +@#?' >''>C+#<%%E' >K+ O=# ?@>D!' +' J<?' %1O=!' ,>.E' %1O=!' $>M' '1K>' +@>' A<O ?@' O<+ 1O' C1#%D' .>C1,>.' '.1B' +@>' $%1J!' 1.' '1.=>+' +@>' ?<D' ?+1.E' 1'' +?' D ?<?+>.' O' +@>' >D' >..<' +' $>C<B>' +@>' +@>B>!' O1+' 1O%E' 1''C@.1O C%>!' $#+' 1'' ?1O=L' +@>' O1+>' 1'' ?1..1J' J<?' A.1%1O=>D' O' B<OE' <' A%< O+ ,>' ' <OD' +@>' O<B>?' 1'' =# %<.' <OD' @ ?' #O'1.+#O<+>' C1BA<O 1O?' J>.>' >B$<%B>D' O' +@<+' $><#+ '#%' B O?+.>%?E!' ?C<.C>%E' B1.>' A>. ?@<$%>

5%' *)!' 5' % ; 0' *),(% 5' ' ' ,4' ' ,4!' E!' (%3!' FF.,!' FF.,,!' J T E!' (%3!' FF.,,!' W

4 ' E,5%' 5' =,1) ' 5' A' ($ % ' 5' ' %%(, ' *,) ' (%3!' F.,! J *$ % 5' ' 5, 3 ' 0' A' ' % A ' $1; % %(, ' ! (%3!' (F.!' J' %; 1%, C' Y' A' *A, ,%) ' ,3; ,%)%' ,4' FF.,,!' (%3!' .!' J' %>' 3 5' A 1' '%.' A 1' %' 0 ' 3% ; 1 +' 4 ,)' 5' ' , (' %' ' %)5')' A 1' ' A ' 5 ; ,4!' ,!' (! FF.,,,! .,' -[' *%3!' (F.!

' '

<0D '<. B1.> +1#C@ 0=! +@<0 +@> ?+<+>%E <0D >%<$1P .<+> .>C1.D? 1 '@ ?+1.E T @> A1A#%<. '>>% 0= J<? D ?A%<E>D <'+>. <01+@>. '<?@ 10 0 .>=<.D +1 +@> 1#0+ D> .>0< <0D @ ? '1%%1J>.?! J@1 J>.> <CC#?>D 1 'D>?>.+ 0= +@> . A1?+? 0 +@> @1#. 1 'A>. %! <0D B1.> +@<0 10> $<%%<D 1 ' +@> + B > .>A.1<C@'#%%E D>B<0D>D <0 <CC1#0+ '.1B @ B 1 ' +@> $.<,> C1BA<0 10? 0 <.B? J@1B @> @<D %>'+ 0 +@> ? >..< '

@> BA#+<+ 10 10 +@ ? =<%%<0+ 01$%>B<0 <AA><.?

L ((5,)') 0 A K #& (, 5 4C 8C % A F; 3 5, ,) 0 '$, % B% % 3, (0 1%) ,(2$,F , 1 ((% ,); 5 4C '',)' 5,)%)5K (A% ;)',)' A 4 %. 0A, @),'A !/ 3 %) A, 4%))) A $1; 1, 0 A 3$F% % ! Z #$% 5 . %1,' %%% , %1%)%)% 3) 1, %3)5) (,1% 5 % 3$F% %V[A $)@ 0 1 A 3 , $ 13 , , ,) 5 '$, % 3 0 B% 5%)5 4 5C% $1 5 , 0 A,1 0! Z 5 , 14 % % 4% 4% ,) 0$ %)) #$ 5 '$, % % 1%4%! .%)))3, %) C % 1%) % A%4 %! Y 2$ % 13 % 0, % % 1, %4% '$% 5%5% #$ 1, A % % C)% % 1 % ,) 1%)5%5%! Z ' 4 1$(A C % 0 % 2$ 5%4% $)) % %1%) (,5) C% (%.% '%!Z ! A 3 3$ % 5, , , (%);) 4 5), 5 % ,33 C %$; A , , 0 %)C ,13 %) 0%(!

$) $33 5 4C 1 5, (A, ,(,1)C! 9A)(1; 3 5 A B . 4C( ) 13 %; , A BA , . 5) % A ,1 A C1%C . C)% $ % C ; (5 1%)C $ 5 %, , ,); ,'),0,(%) ,) A , ( ) 2$)(% %(A !) ,(0A, C! A 4% %5 %) % 5 B, A 1$(A %4 % ,13 ,(, C 4C (C , (A, 0 C %@)' $3 % A)', A %5 1%C 1 1; 4 B, A A F3 , 0% .,; ,%) A)%1 5 %%. 5 %! $(A 3)%' ,) ,(5 % 0% % % 1 %B% 4C A 3%), A (A),(! A)%1 0 %%; . 5 % A B . %33 % A%. 4)%0%1, ,%) ,) ., %)5 (($ B A ,1 ,) A 1$ > 0) 4 %)5 (%.%; , 0 A% (, C BA + ,) 5 '',) 5,)%)5K % 1C ,) A 3 (5; ,)' C % 6 !))%! 5 ; ., % 5! %)) !)5 G%) ,(A 3 ;) ,(00$,) P : $ % 5 : %;)%5% 3! X< %)5 5% P3! X (, A 0 B,)' ($3 0 1) 0 A 1! 8 (,5 *)5 5)%)') 5)5 2$ 5%![

J@1%%Eʻ #0D>?>.,>D!ʻ '1.ʻ C>.+< 0%Eʻ @>ʻ J<?ʻ 01+ʻ C<%%>Dʻ 10ʻ +1ʻ +@.1Jʻ<J<Eʻ @ ?ʻ 1J0ʻ % '>!ʻ <0Dʻ +@1?>ʻ 1'ʻ@ ?ʻ $.<,>ʻ '1%%1J>.?!ʻ 0ʻ <ʻ C<#?>ʻ A>.'>C+%Eʻ D>?A>.<+>!ʻ '1.ʻ <ʻ C@ P B>. C<%ʻ A1 0+ʻ 1'ʻ@101#.Lʻ <0D!ʻ?1ʻ'<.ʻ'.1Bʻ'1.'> + 0=ʻ +@>ʻ '<,1#.ʻ 1'ʻ@ ?ʻ ?1,>.> =0?ʻ $Eʻ @ ?ʻ C10D#C+ʻ 10ʻ +@ ?ʻ 1CC<? 10!ʻ @>ʻ J<?ʻ B< 0+< 0>Dʻ $Eʻ +@>Bʻ 0ʻ +@>ʻ ?<B>ʻ @ =@ʻ ?+<+ 10?ʻ J@ C@ʻ @>ʻ $>'1.>ʻ @>%D!ʻ <0Dʻ J@ C@ʻ @>ʻ C10+ 0#>Dʻ+1ʻ' %%ʻ J +@ʻ D =0 +Eʻ+1ʻ<ʻ=11Dʻ1%Dʻ <=> T

+ʻ J<?ʻ <$1#+ʻ ?>,>0+Eʻ E><.?ʻ <'+>.ʻ+@ ?ʻ>,>0+!ʻ 89 !ʻ +@<+ʻ +@>ʻ #H>ʻ 1'ʻ .C1?!ʻ D>?C>0D>Dʻ '.1Bʻ +@>ʻ =.><+ʻ <.F# ?ʻ 1'ʻ <D G!ʻ <0Dʻ '.1Bʻ +@ ?ʻ ?<B>ʻ 1#0+ʻ 1'ʻ .>0<!ʻ %>Dʻ<0ʻ>KA>D + 10ʻ 0+1ʻ+@>ʻ >..<ʻ >.B>"<!ʻ 0ʻ 1.D>.ʻ +1ʻ ?#AA.>??ʻ <ʻ? B %<.ʻ 0?#..>C+ 10ʻ 1'ʻ+@>ʻ 1M . ?C1>?ʻ B10=ʻ+@>ʻA<.+Eʻ J>.>ʻ B<0Eʻ1'ʻ+@>ʻD>?C>0DP <0+?ʻ <0Dʻ H 0?B>0ʻ 1'ʻ+@1?>ʻ J@1ʻ @<Dʻ '1#=@+ʻ #0D>.ʻ =# %<.ʻ +ʻ J<?ʻ+@>ʻ' .?+ + B>ʻ? 0C>!ʻ+@<+ʻ+@>?>ʻ.#D>ʻ A<??>?ʻ@<Dʻ $>>0ʻ+.1DD>0ʻ $Eʻ @. ?+ <0ʻ '>>+Lʻ $#+ʻ+@>ʻ +.<D + 10?ʻ 1'ʻ><.%Eʻ C@ %D@11Dʻ@<Dʻ B<D>ʻ>,>.Eʻ 0C@ʻ1'ʻ =.1#0Dʻ'<B %<.ʻ+1ʻ+@>ʻ?1%D>.?ʻ 1B>ʻ J<Eʻ #Aʻ+@>ʻ >B 0>0C>!ʻ+@>Eʻ .>C1=0 ?>Dʻ+@>ʻA1 0+ʻ<+ʻ J@ C@ʻ+@>ʻ 1#0+ʻ D>ʻ .>0<ʻ@<Dʻ B<D>ʻ@ ?ʻ?+<0DLʻ<0D!ʻ'#.+@>.ʻ ?+ %%!ʻ+@>ʻ'<+<%ʻ A%< 0!ʻ $>%+>Dʻ.1#0Dʻ J +@ʻ +?ʻD<.Hʻ.<BP A<.+ʻ 1'ʻ.1CH?!ʻ J@>.>ʻ+@>ʻ?+. '>ʻ @<Dʻ $>>0ʻ @1++>?+ʻ C<++>.>Dʻ '.<=B>0+?ʻ 1'ʻ<.B?ʻ <0Dʻ @<.0>??ʻ ?+ %%ʻ %<Eʻ .#?+ 0=ʻ 10ʻ +@>ʻ=.1#0D!ʻ J@ C@ʻ J<?ʻ C1,>.>DʻU +@ʻ +@>

Qʻ Aʻ E) ,%)ʻ%14% %5 ʻ ' 5A$1 $ 5Cʻ Y 1 ,1 ʻ.,; %.%', ʻ %Bʻ Aʻ*)5ʻ5ʻ ,ʻ1 ʻ4$ʻ 5 1ʻ% Cʻ)'ʻ0ʻ)%'%ʻ $)%ʻ 6 !ʻ 8ʻB%ʻ 1Cʻ4 5Cʻ,ʻ,@ʻ%ʻ %GCʻ 5',))ʻ)+ C,)'ʻ%'ʻ)ʻ 5%'ʻ ʻ%ʻA ʻ BA ʻ %. ʻ0,)5ʻ $(Aʻ3 ʻ 1,), ʻ F3 ʻ, ʻY 1 ʻ. (>ʻ 0% ʻ A%ʻ A Cʻ1 Cʻ $(A%)5ʻ (A,ʻ ʻ ') ,ʻ (''%) ʻ 3 ![ʻ ' ![ʻ E,%'', ʻ,)ʻ 3%')%ʻ0 ! /! ʻ , % [ʻ %,5ʻ A ʻ . %)

$10>?' 1'' +@>' J<.. 1.?' +@<+' @<D' %< 0' '1.' B1.>' +@<0' @<%'' <' C>0+#.E' #0$. >D' <0D' $%><C@ 0=' 0' +@>' ?#0 T' >.>' J<?' +@>' ?A1+' 10' J@ C@' +@>' $.<,>' ?10' 1'' =# P %<.' @<D' '1#=@+' ?1' ?+#.D %E' $E' @ ?' '<+@>. ?' ? D>L' <0D' +@>.>' +@>' @#=>' .1CH' <+' J@1?>' '11+' +@>' C@ >'+< 0' @<D' '<%%>0!' +@.1J 0=' +?' D<.H' ?@<D1J' 1,>.' +@>' .>B< 0?' 1'' +@>' 01$%>' D><D!' J@1' %<E' ?%>>A 0=' <.1#0D' @>' ?+.10=%EMB<.H>D' '><+#.>?' 1'' +@>' =.1#0D' C<%%>D' #A' <%%' +@>' C .C#B?+<0C>?' J@ C@' +@>' ?1%D >.?' @<D' =<+@>.>D' '.1B' +.<D + 10' ' +@> .' @><.+?' $><+' @ =@' <?' +@>E' .>C<P A +#%<+>D' +@>B' 10>' +1' <01+@>.L' <0D' +@>' +><.?!' ?<E?' +@>' >%1F#>0+' @ ?+1. <0' J@1' +>%%?' +@>' ?+1.E!' '>%%' '<?+' D1J0' +@> .' .10' C@>>H?!' <?' +@>E' =<G>D' 10' +@>' ?<D' .>% C?!' <0D' 1''>.>D' #A' <' ?1%D >.?' A.<E>.' '1.' +@>' @>.1 C' ?1#%?' J@ C@' 10C>' <0 B<+>D' +@>.0 '

.<0F# %% +E' J<?' 01J' .>?+1.>D' +@.1#=@1#+' +@>

Q' :$, %5' : %)%5%' 3!' !' J'* 13%' A' ,1, %'3%,) ,)'' 0' %(, $!' Y' ,)' 1, $ '.%>' A$1, ,'0 %'%((, '+%1' ,; 2$,%' ( ) 5, ',) ,' 4%) $<' 1 5, '(%13,'% 4) ,%' %'$'0$>' ' %) +'$' , %) '5, + (%. ' %'' % %4 %5+%(4%)' 0 %'1,)%' $1' 2$ 12' % $ ',>' 1$' $)(,' % 4 $1' %) 0,F%>' %![' P))% ' ,4!' ,!' (! F,!X')5 G%' 0% ') A,)'' A 0' A, '(4 % 5'5 (,3 ,)',)' A' 1%)' A, ,%)' BA ' : >' 1%),($' 3%C' A' % ' %5' 00,(' ' A' 1%,) ' 0' E% $ '%)5'A, ' ',) !

Y' %)' ,%1' (%5,5'5,(%' ' +$5,('.,($1!Z

')5 G%' :$ %'5' : %;)%5%' 33!' J 4 5!' E%;)(,%' // !

A' , A' ,) $ (,)' 0' 6/' B%' %)5 5'B, A'%' % ')' ' 5' $ ' ,)' (% ,)'' 0 A' A, ' A, ,(1% 3, (' A' B ,W@ 0' A'%((13, A 5' , ' ' 8$ %5' 5')5 G%' %((1; 3, A 5'%,@'%'%' % 1%)'B% ; , '%)5A, ,%)!' 8, :$ %5' : %)%5%' ( )0,) 5'%' , ' , ' %' 4%,)'0%'1)' 0' , A'A, ; C' 5, 3%C' $(A' ,4 %'); ,1)' P ' ,4 %',)5 5' ' 3 1, ', '3$4 ,(% ,)' , ')''%0; ' , '%$ A W'5 %AX'3 0 $)5' 0 (,)'%)5' (% ,('%)(' 0' C ' %' B ') , 'A,1' ' A' %33 %,)' 0' A' 3%), A % $!

J D>' $1.D>.?' 1'' .<0<D<' @>' $<00>.' 1'' +@>' .1??'
'%1<+>D' +. #BA% <0+%E' 1,>.' +@>' J@1%>' >K+>0+' 1'' +?'
J %D' ? >..<?!' +?' $.1<D' ,<%%>E?!' <0D' A1A#%1#?' C + >?'
,>.E' 11.!' 0' >K+>. 1.' <+' %><?+!' @<D' $>C1B>' <'
@. ?+ <0' L' >,>.E' B1?F#>' @<D' $>>0' C10,>.+>D' 0+1'
<' @. ?+ <0' C@#.C@L' ?+ %%' +@>' C1#0+.E' J<?' 01+' >0P
+ .>%E' A#. ' >D' '.1B' +@>' ?+< 0' 1'' ?%<B ?B!' ? 0C>' B<0E'
A.1'>?? 0=' +@> .' <0C >0+' '< +@' J>.>' ?C<++>.>D' 1,>.'
D '%>.>0+' A<.+?' 1''+@>' H 0=D1B' 1'' <?+ %>!' J@>.>' +@>E'
@<D' $>>0' %10=' .>? D>0+' $>'1.>' +@>' ?#..>0D>.' 1''+@> .'
C<A +<%' @>' %<+>' >,>0+?' ?>>B>D' +1' @<,>' 01' 1+@>.'
>''>C+' +@<0' +1' @<.D>0' +@>B' 0' >..1.'L' <0D' +@>' A<0 ?@'
=1,>.0B>0+' ?<J' J +@' <%<.B' +@>' A>.0 C 1#?' 0'%#>0C>'
1'' +@> .' >K<BA%>' <0D' A>.?#<? 10!' 0' ?@<H 0=' +@>'
0' .B' '< +@' 1''+@>' 0>J' C10,>.+?

1' 1$, <+>' +@ ?!' <0' 1.D 0<0C>' J<?' A#$% ?@>D!' 0'
+@>' ?#BB>.' 1'' 8 !' A.1@ $ + 0=' <%%' 0+>.C1#.?>'
$>+J>>0' +@>?>' 11.?' <0D' +@>' 1.+@1D1K' H 0=D1B' 1''
.<0<D<T' +' %>0=+@!' @1J>,>.!' C10, 0C>D' +@<+' +@>.>'
J<?' 01' 1+@>.' J<E' +1' ?<,>' +@>' A.>C 1#?' ?>>D' '.1B'
$> 0=' C@1H>D' $E' +@>' +@1.0?' 1'' 0' D>% +E' +@<0' +1'
>.<D C<+>' +@>B' <%+1=>+@>.!' +@>' ?1,>.> =0?' C<B>' +1'
+@>' >K+.<1.D 0<.E' .>?1%#+ 10' 1'' 1''>. 0=' +@>B' +@>'
<%+>.0<+ ,>' 1'' $<A+ ?B' 1.' >K %>' @>E' ??#>D' <'
' +1' +@<+' >''>C+' '.1B' >, %%>!' >$.#<.E'
+@!' 8 7' '+>.' <' A.><B$%>!' D#%E' ?>++ 0=' '1.+@'
+@>' 1$% =<+ 10?' 1''=.<+ +#D>' 10' +@>' <?+ % <0?' +1' D. ,>'
1D?' >0>B >?' '.1B' +@>' %<0D!' J@ C@' @>' 0' @?' =11D'
+ B>' @<D' D>% ,>.>D' 0+1' +@> .' @<0D?!' <0D' +@>' 0#B>M

.1#?' $<CH?% D 0=?' 1CC<? 10>D' <B 10=' +@>' 0>J' C10,>.+?' $E' +@> .' 0+>.C1#.?>' J +@' +@> .' 0$<A+ G>D' $.>+@.>0!' +@>' <C+' =1>?' 10' +1' ?+<+>!' 0' B#C@' +@>' ?<B>' +>.B?' J +@' +@>' '<B1#?' 1.D 0<0C>' <=< 0?+' +@>' />J?!' +@<+' <%%' +@>' #0$<A+ G>D' 11.?' 0' +@>' H 0=D1B?' 1'' <?+ %>' <0D' >10!' <$1,>' '1#.+>>0' E><.?' 1''<=>' '1.' +@>' B<%>?!' <0D' +J>%,>' '1.' +@>' '>B<%>?!' ?@<%%' %><,>' +@>' C1#0+.E' $E' +@>' >0D' 1'' A.%' '1%%1J 0=L' +@<+' +@>E' B<E' ?>%%' +@> .' A.1A>.+E' 0' +@>' B><0' + B>!' <0D' +<H>' +@>' A.1P C>>D?' 0' <0E' +@ 0=' ?<,>' =1%D' <0D' ?%,>.!' <0D' B>.P C@<0D ?>' .>=#%<.%E' A.1@ $ +>D' LN<0D' ' 0<%%E!' +@<+' +@>E' B<E' >B =.<+>' +1' <0E' '1.> =0' C1#0+.E!' >KC>A+' +@>' D1B 0 10?' 1'' +@>' .<0D' #.H!' <0D' ?#C@' A<.+?' 1'' '.C<' <?' A< 0' J<?' +@>0' <+' J<.' J +@' $>D >0C>' +1' +@>?>' ?>,>.>' A.1,?10?' J<?' >0'1.C>D' $E' +@>' A>P 0<%+ >?' 1''D><+@' <0D' C10' ?C<+ 10' 1''A.1A>.+E T

@?' ?+>.0' >D C+!' ?1' C%1?>%E' B1D>%%>D' 10' +@<+' <=< 0?+' +@>' />J?!' B#?+' @<,>' $>>0' >,>0' B1.>'=.>,P 1#?' 0' +?' <AA% C<+ 10'L'' '1.' +@>' />J?' B<E' $>' ?< D' +1' @<,>' $>>0' D>0 G>0?' <%B1?+'>F#<%%E' 1''>,>.E' C1#0P +.E!' J@ %>' +@>' 11.?!' >KC%#D>D' '.1B' <' .>+.><+' <B10=' +@> .' C1#0+.EB>0' 10' +@>' '.C<0' ?@1.>!' J>.>' ?>0+' 0+1' +@>' %<0D?' 1''>0>B >?!' 1.' ?+.<0=>.?' @>' '1.B>.!' B1.>1,>.!' J>.>' '<.' $>++>.' F#<%' >D' $E' +@> .' 0<+#.<%

T' 5.<=B<+ C<?' D>%' >E01!' D>' <B .>G!' '1%' 9

+' %>D<' <0K 1#?%E' C%< B?' +@>' C.>D+' 1'' +@>' <C+' 1''>KA#%?10' '1.' .<E' @1B<?D>' 1.F#>B<D<!' 1'' 0F#?+1.<%B>B1.E' - 1.10C<!' A' 6 * @<+'>B 0>0+A>.?10<=> @<D!0D>>D!$>>0'D><D'?1B>'E><.?L' $#+' +@?' >D C+' J<?' ?1' 1$,1#?%E' ?#==>?+>D' $E' +@<+' <=< 0?+' +@>' />J?!' +@<+' +' B<E' $>' C10?D>.>D' <?' +@>' .>?#%+' 1'' @?' A.0C A%>?!' '' 01+' D.>C+%E' +<#=@+' $E' @B' @#?' +' ?!' +@>' >,%+@<+' B>0' D1' %,>?<'+>.'+@>B

?% .>JDO>??' <OD' C1BB>.C <%' @<$ +?' '1.' D ?A1? O=' 1'' +@> .' A.1A>.+E' <D,<O+<=>1#?%E!' +@<O' +@>' ? BA%>!' OP >KA>. >OC>D' 11.?!' ?H %%>D' O' % ++%>' >%?>' +@<O' @#?P $<OD.E!' 1.' .#D>' B>C@<O C' <.+?' >' @<,>' O1J@>.>' B>+' J +@' <OE' >?+ B<+>' 1''+@>' O#B$>.' J@1' B =.<+>D' 10' +@ ?' 1CC<? 10' @>' <?+ % <O' J. +>.?' A<??' 1,>.' +@>' J@1%>' <''< .' O' <' ,>.E' '>J' J1.D?L' O1+!' OD>>D!' <?' ?' +11' >, D>O+!' '.1B' <OE' '>>% O=?' 1''D ?<AA.1$<+ 10!' $#+' '.1B' +?' O? =O ' C<OC>' O' <' A1% + C<%' , >J ' @> .' ? %>OC>' O'>.?' <' ,>.E' OC1O? D>.<$%>' <B1#O+' 1''>B P =.<O+?L' <' C .C#B?+<OC>' O1+' +1' $>' J1OD>.>D' <+!' <?' +@>.>' J>.>' ,>.E' '>J!' A.1$<$%E!' J@1' J1#%D' O1+' ?11O>.' B +<+>' +@> .' .<O<D O>' $.>+@.>O' O' <??#BP O=' +@>' B<?H' 1'' @. ?+ <O +E!' +@<O' >OC1#O+>.' >K"%>!' #OD>.' <%%' +@>' <==.<,<+>D' B ?>. >?' J +@' J@ C@' +' J<?' <CC1BA<O >DT

<?+ %>' B =@+' O1J' $1<?+!' +@>' ' .?+' + B>' '1.' > =@+' C>O+#. >?!' +@<+' >,>.E' 1#+J<.D' ?+< O!' <+' %><?+!' 1'' O' P D>% +E' J<?' A#. ' >D' '.1B' @>.' $1?1B ' #+' @1J' @<D' +@ ?' $>>O' <CC1BA% ?@>D'2' E' +@>' B1?+' D>+>?+<$%>' >KA>D >O+?' J@ C@' ?1A@ ?+.E' C1#%D' D>, ?>!' <OD' 1AA.>?P ? 1O' >K>C#+>L' <OD' +@<+!' +11!' #OD>.' <O' >O% =@+>O>D' =1,>.OB>O+!' A.1A1? O=' +1' $>' =# D>D' ?1%>%E' $E' <' C1OP ?C >O+ 1#?' .>=<.D' '1.' D#+E' ' (13 A)5' +@ ?' B1.>' '#%%E!' +' J %%' $>' O>C>??<.E' +1' +<H>' <' $. >'', >J

L' A' *% ,,%)' B, ' ; R( ) % 5' 4C' %)' A 5 F' %)F; 3 (,% C' A' 5 %1%,(' A%.') ' , C' ' +$,0C' A' ( )5$(' 0' 4)' ,)) ,4 ' ' A' 3 ,(%' A ,' B)' ' .)1)!' A' %; ,$% ,)' %00 5 5' 4C' A' 5, ; 5' 1%C' ((' %' 3 ,))' ' 0' A' 4%), A 5' , (! F%13 ',)' A' C' 0' %)(A K' A ,' C13% AC' 0' A' F, ' , A' 0,)5' ,(!)' A B . ' ,' >BA,1 ,(% C') $'A #$,F ' % ',,!' (%3!' ,.!

<@1B>+<0 ?B!' @<D' ?@1J0' <' '>.1C +E' <0D' C.#>%+E' 0' +@> .' +.><+B>0+' 1'' +@>' @. ?+ <0?!' J@ C@' $.1#=@+' =>0>.<%' 1D #B' 10' <%%' +@>' A.1'>??1.?' 1'' +@> .' '< +@!' <0D' 10' +@>' 11.?!' 1''C1#.?>!' +@1#=@' B1?+!'#0D>? U.,M >D%E!' 0' C1BB10' J +@' +@>' .>?+' @>' $1%D!' @>+>.1D1K' D1C+. 0>?!' <%?1!' J@ C@' @<D' 1CC<? 10<%%E' $.1H>0' '1.+@' 0' D ''>.>0+' A<.+?' 1'' #.1A>' 0' +@>' ' '+>>0+@' C>0+#.E!' % H>' ?1' B<0E' '< 0+' ?+.><H?' 1'' % =@+' #?@>. 0=' 0' +@>' =%1. 1#?' B1.0' 1'' +@>' >'1.B<+ 10!' @<D' .1#?>D' +@>' <%<.B Y+@>' C@<BA 10?' 1''+@>' C@#.C@!' <0D' H 0D%>D' d+' ' +@<0' 10>' 1CC<? 10' +@>' ' .>?' 1''A>.?>C#+ 10' 4 0,' .>' +@>' C%1?>' 1'' +@>' A>. 1D!' +@>' 0F# ? + 10' B% ',) 0' #C>D' 0+1' A< 0

L@<+' D ?<?+.1#?' @1#.!' .>% = 10' J1.>' <' 0>J' <?A>C+' ' +@ ?' #0@<AAE' C1#0+.E ' @>' ?A . +' 1'' 0+1P

%)(' ' %10=>.' @11D>D' 0' +@>' D<.H0>??' 1'' +@>' C%1 ?+1U' %1J' ?+<%H>D' <$.1<D' 0' <%%' +?' +>..1.?' V><%' J<?' >K<'+>D' 0+1' '<0<+ C ?B!' <0D' <' .<+ 10<%' ?A . +' C.' 0.1?C%,+ ?B' 0+1' 10>' 1'' ' >0D ?@' A>.?>C#+ 10' +' J<?' 01+' >01#=@' 01J!' <?' '1.B>.%E!' +1' C10'1.0' A<?P ? ,>%E' +1' +@>' D1C+. 0>?' 1'' +@>' C@#.C@!' $#+' +' J<?' >0P "1 0>D' +1' B<H>' J<.' 10' <%%' J@1' .>'#?>D' +@>B ' @>' 0<+#.<%' '>>% 0=?' 1'' C1BA#0C+ 10' 0' +@>' D ?C@<.=>' 1'' +@ ?' ?<D' D#+E' J<?' <' C. B>L' <0D' +@>' +><.' 1''?EBA<P +@E!' J.#0=' 1#+' $E' +@>' ? =@+' 1'' B1.+<%' <=10 >?!' J<?' <0' 1''>0C>' +1' $>' >KA <+>D' $E' @#B % <+ 0=' A>0<0C>' @>' B1?+' '. =@+'#%' B<K B?' J>.>' D>% $>.<+>%E' >0P =.<'+>D' 0+1' +@>' C1D>' 1'' B1.<%?' 0E' 10>!' +' J<?' ?< D!' B =@+' C10?C >0+ 1#?%E' H %%' <0' <A1?+<+>' J@>.>,>.' @>' C1#%D' B>>+' @ B ' @>.>' J<?' ?1B>' D1#%U+' J@>+@>.

<' B<0' B =@+' ?%<E' @ ?' 1J0' '<+@>.!' ''<' @>.>+ C' 1.' 0' P
D>%' L' $#+' 010>' J@<+>,>.' <?' +1' @ ?' . =@+!' 0' +@<+' >,>0+!'
+1' +<H>' <J<E' +@>' % '>' 1'' @ ?' ?10!' 1.' @ ?' $.1+@>. T'
@>?>' B<K B?' J>.>' 01+' <' D><D' %>++>.!' $#+' 1'' B1?+'
<C+ ,>' 1A>.<+ 10!' <?' +@>' ?<D' .>C1.D?' 1''+@>' D.><D' +. P
$#0<%' +11' J>%%' A.1,>' @>' C@<.<C+>.' 1'' +@>' 0<+ 10'
#0D>. J>0+' <' B>%<0C@1%E' C@<0=>' @>' B %H' 1''C@<P
. +E!' 0<E' 1'' @#B<0' '>>% 0=!' J<?' ?1#.>D' 0' >,>.E'
$1?1B' @>' % $>.<% +E' 1''+@>' 1%D' A<0 ?@' C<,<%>.'
=<,>' J<E' +1' +@>' '>.E' '<0<+ C ?B' 1''+@>' B10H' % >'
+<?+>' '1.' $%11D!' 10C>' =.<+ ' >D!' $>=<+' <' C<00 $<%' <AA>P
+ +>' 0' +@>' A>1A%>!' J@1!' C@>>.>D' 10' $E' +@>' ' #0+ C'
C%>.=E!' ?>>B>D' +1' , >' J +@' 10>' <01+@>.' 0' +@>' ><=> U'
0>??' J +@' J@ C@' +@>E' .<0' D1J0' +@>' B ?>.<$%>U" .'0U'
1''+@>' 0F# ? + 10' U
+' J<?' <+' +@ ?' ,>.E' + B>!' J@>0' +@>' 0'>.0<%' B10P
?+>.!' =1.=>D' $#+' 01+' ?<+>D' J +@' @#B<0' ?<C. ' C>!' J<?'
C.E 0=' <%1#D' '1.' '.>?@' , C+ B?!' +@<+' .<0<D<' ?#..>0P
D>.>D' +1' +@>' A<0 <.D?!' #0D>.' +@>' ?1%>B0&=#<.<0+>>'
1''+@>' '#%%' >0"1EB>0+' 1''C , %' <0D' .>% = 1#?' % $>.+E'
@>' +.><+E' 1''C<A +#%<+ 10' =.<0+>D' +11' B#C@' 1.' +11'
% ++%>!O +11' % ++%>' '1.' <0' 0D>A>0D>0+' ?+<+>!' +11' B#C@'
'1.' 10>' J@1?>' >K ?+>0C>' J<?' 01J' B>.=>D' 0' +@<+' 1''
<' =.><+>.L' '1.' +' ?>C#.>D' +@>' 11.?' A. , %>=>?' 0'
?1B>' .>?A>C+?' ?#A>. 1.' +1' +@1?>' 1''+@>' <?+ % <0?!' <0D

Q' ' A ' , A 3' 0' A$ %%' B, A' BA,(A' 5% A % , C' (,);
% , ' 8' ' ' %([' (!' (,5 ' A%' A '' .)1)' B $ 5'
(, 5' 4C' A ',)5$, $' * 1)' 4' 3 0 (C' +$,0, 5' ,)' %@,)''
(,)!' P $!' =E!X' A ' ' %B%C' A' 0,0' 0' . C' ',)'
%)5' ? B ' 0' ($ ' 5') ' A' @,)'5 1'0 ' A , ' A%1 '
(A%)(' ,)' A, ' (5 !' A ' . ; ,)0,5 , C!' 4,' $3!' %)5' 5%'
)5' 0% A ' F3 '%)' 3,),) *),(%' 3!' HH6!

to the prejudice of the latter. Such, for example, was the permission to trade with the Barbary coast, and with the various places in Castile and Andalusia, without paying the duties imposed on the Spaniards themselves;* and that, again, by which runaway Moorish slaves from other parts of the kingdom were made free and incapable of being reclaimed by their masters, if they could reach Granada.† The former of these provisions struck at the commercial profits of the Spaniards, the latter directly at their property.

It is not too much to say, that such a treaty, depending for its observance on the good faith and forbearance of the stronger party, would not hold together a year in any country of Christendom, even at the present day, before some flaw or pretext would be devised to evade it. How much greater was the probability of this in the present case, where the weaker party was viewed with all the accumulated odium of long hereditary hostility and religious rancour?

The work of conversion, on which the Christians, no doubt, much relied, was attended with greater difficulties than had been anticipated by the conquerors. It was now found, that while the Moors retained their present faith, they would be much better affected towards their countrymen in Africa than to the nation with which they were incorpo-

* The articles of the treaty are detailed at length by Marmol, lib. i. c. xix.

† Ibid. ubi supra.

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